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(54) **COMPUTER IMPLEMENTED METHODS
SYSTEMS AND ARTICLES OF
MANUFACTURE FOR PREPARING
ELECTRONIC TAX RETURN WITH
ASSUMPTION DATA**

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(57) **ABSTRACT**

Computer-implemented methods, systems and articles of
manufacture for populating an electronic tax return with
assumption data and managing assumption data. A user
interface controller in communication with a logic agent and
a data store shared with the logic agent receives user data,
selects a configuration file based at least in part upon the user
data, reads or executes the selected configuration file to
determine assumption data of the configuration file or to
identify assumption data in an electronic data source. The
assumption data is written by the user interface controller to
the data store so that it can be read by the logic agent, which
generates a non-binding suggestion regarding a question or
tax topic that the user interface controller may present to the
user based at least in part upon the assumption data.

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CPC **G06Q 40/123** (2013.12); **G06F 3/0484**
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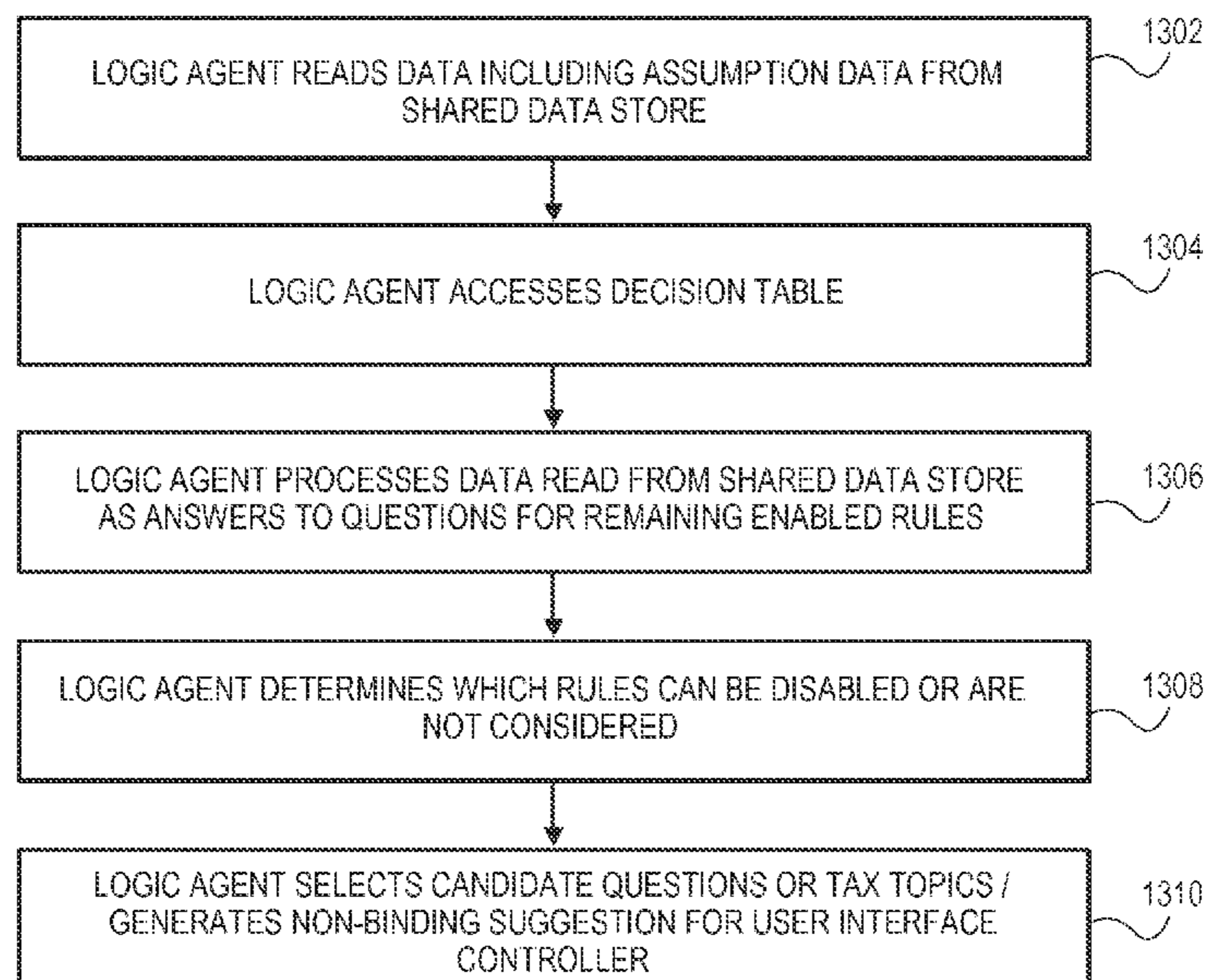
(58) **Field of Classification Search**
None
See application file for complete search history.

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31 Claims, 20 Drawing Sheets



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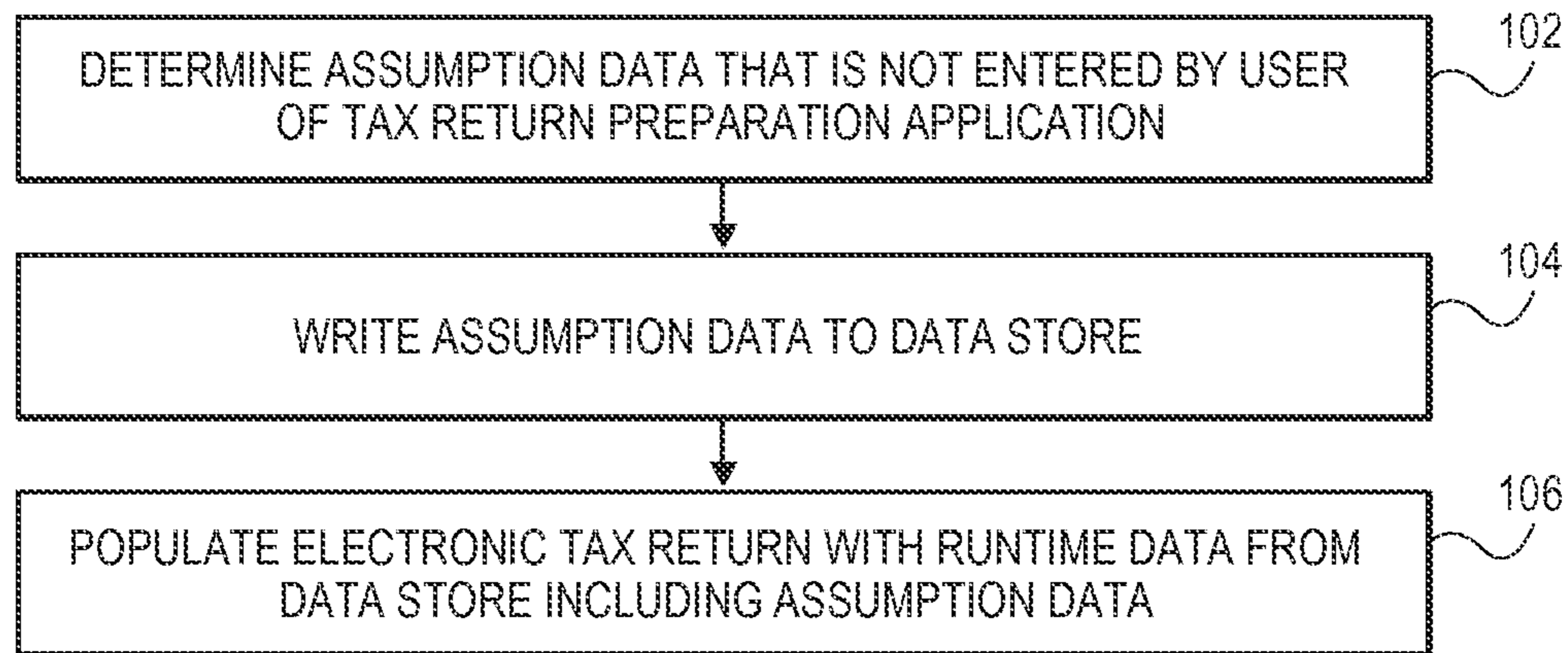


FIG. 1

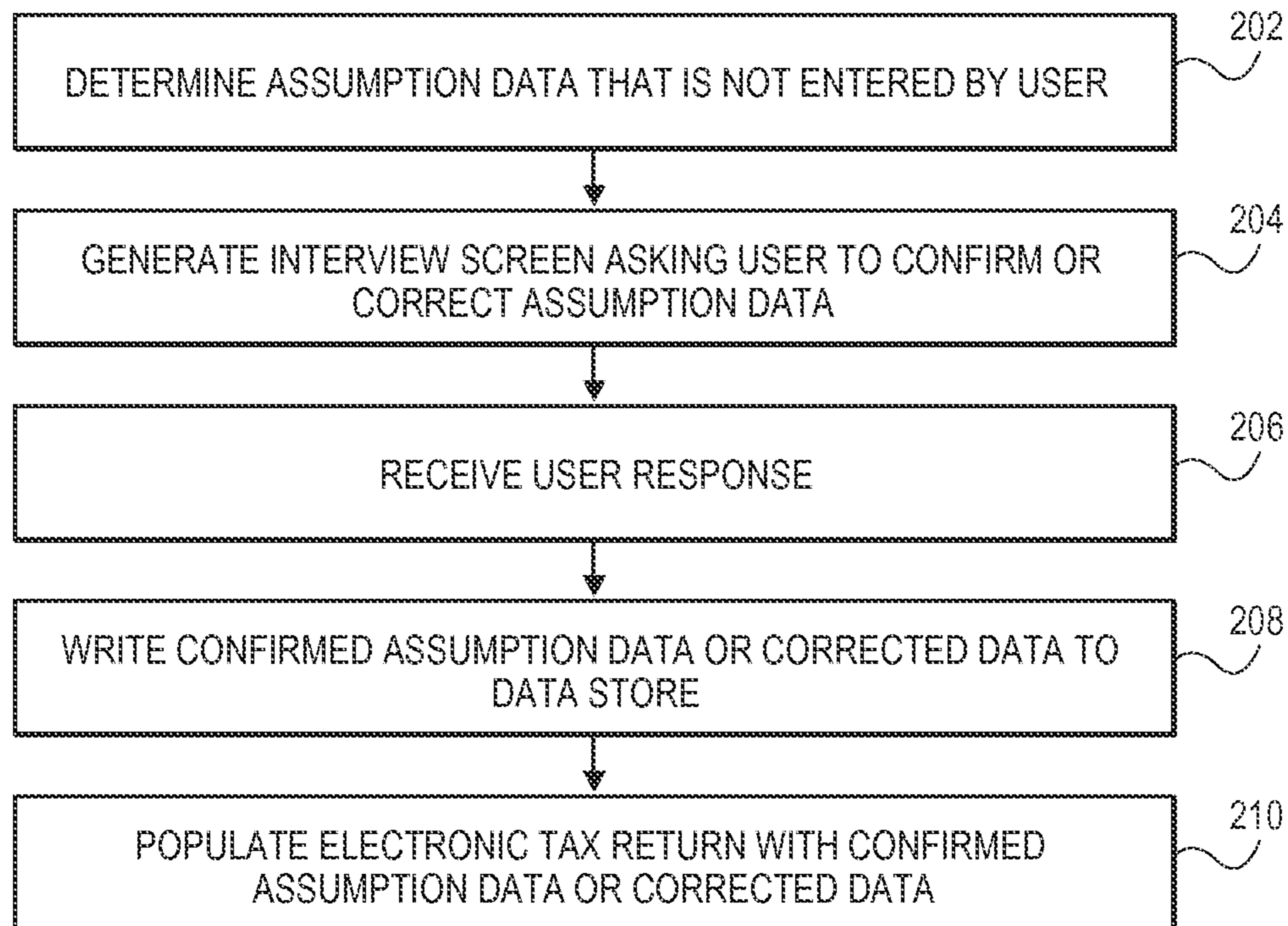
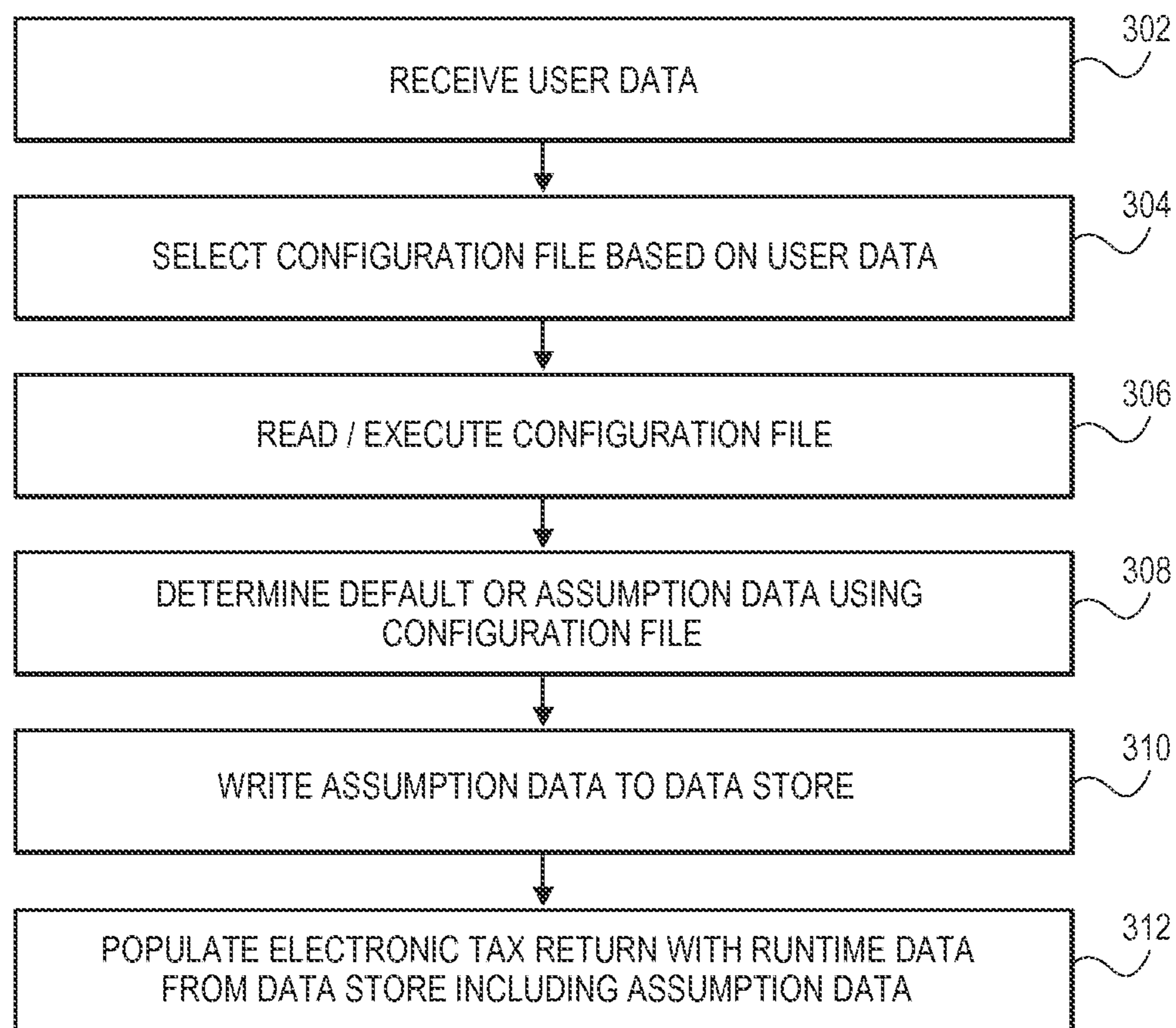


FIG. 2

**FIG. 3**

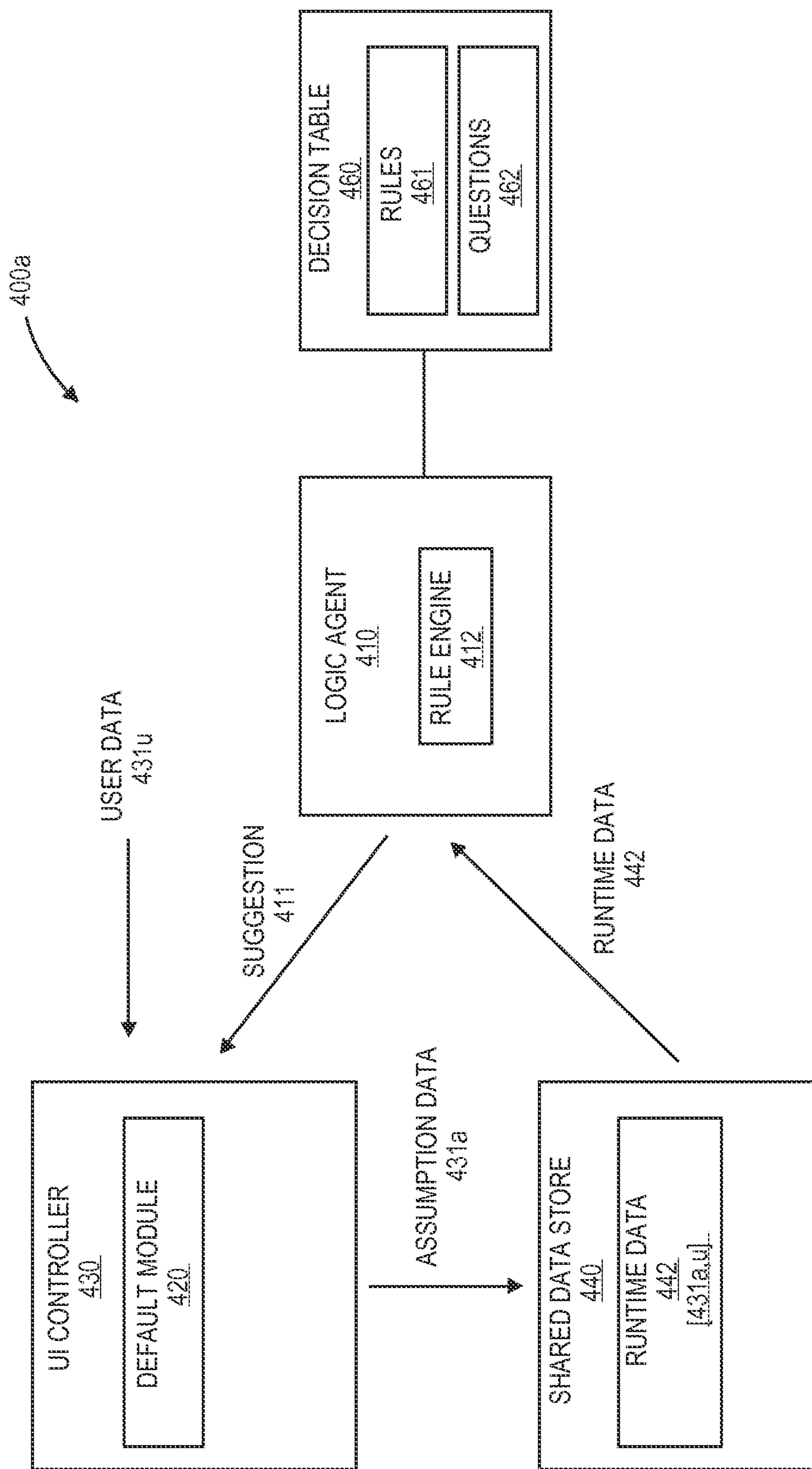


FIG. 4A

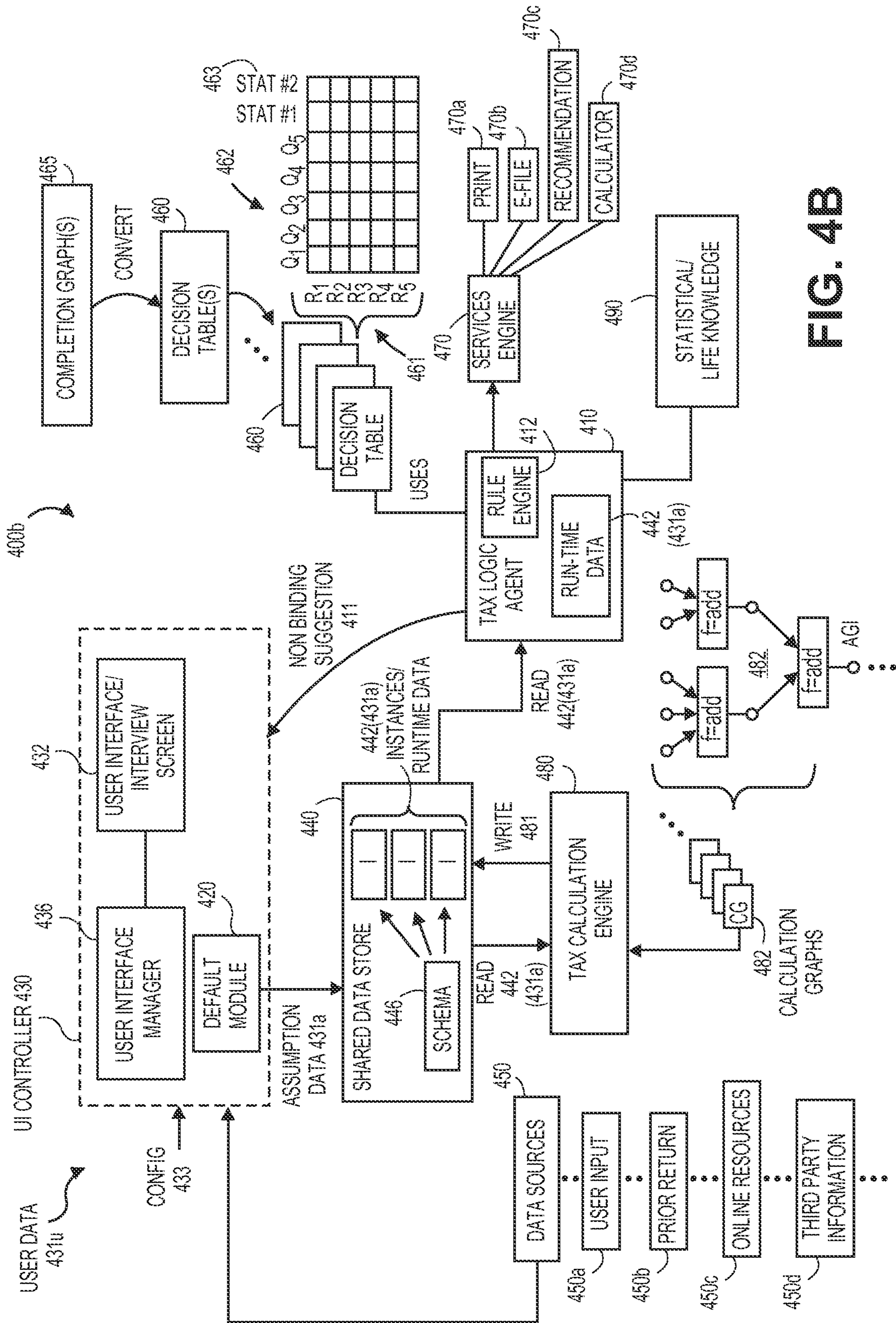


FIG. 4B

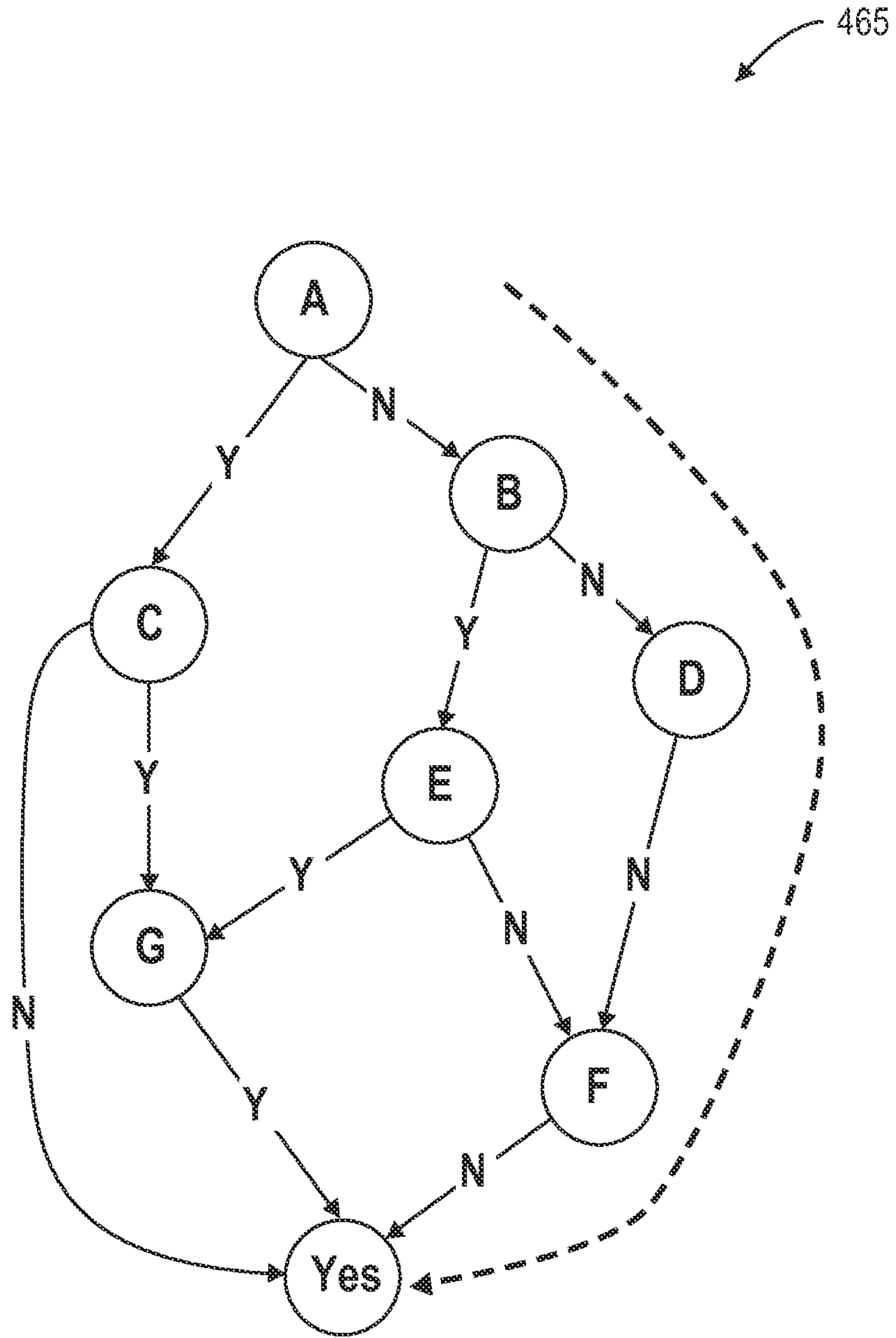


FIG. 5

460

Columns (Questions 462)

A	B	C	D	E	F	G	Goal
Y	?	N	?	?	?	?	Yes
Y	?	Y	?	?	?	Y	Yes
N	Y	?	?	Y	?	Y	Yes
N	Y	?	?	N	N	?	Yes
N	N	?	N	?	N	?	Yes

R1-R5

(Rows) (Rules 461)

FIG. 6

460

Columns (Questions 462)

	A	B	C	D	E	F	G	Goal
R1	Y	?	N	?	?	?	?	Yes
R2	Y	?	Y	?	?	?	Y	Yes
R3	N	Y	?	?	Y	?	Y	Yes
R4	N	Y	?	?	N	N	?	Yes
R5	N	N	?	N	?	N	?	Yes

(Rows) (Rules 461)

Cross Out
Since Answer A
to Question A
is "yes"

FIG. 7

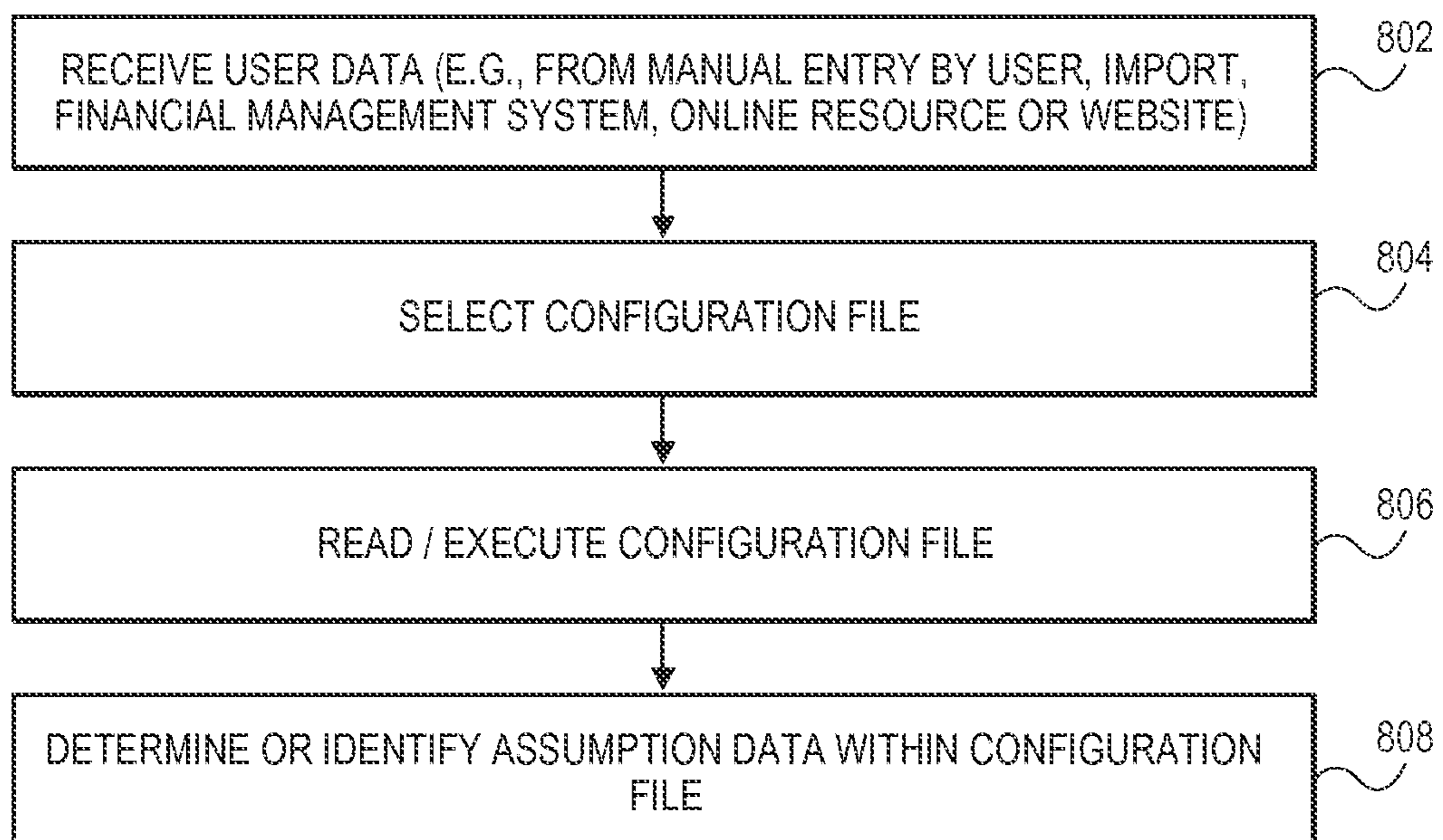


FIG. 8A

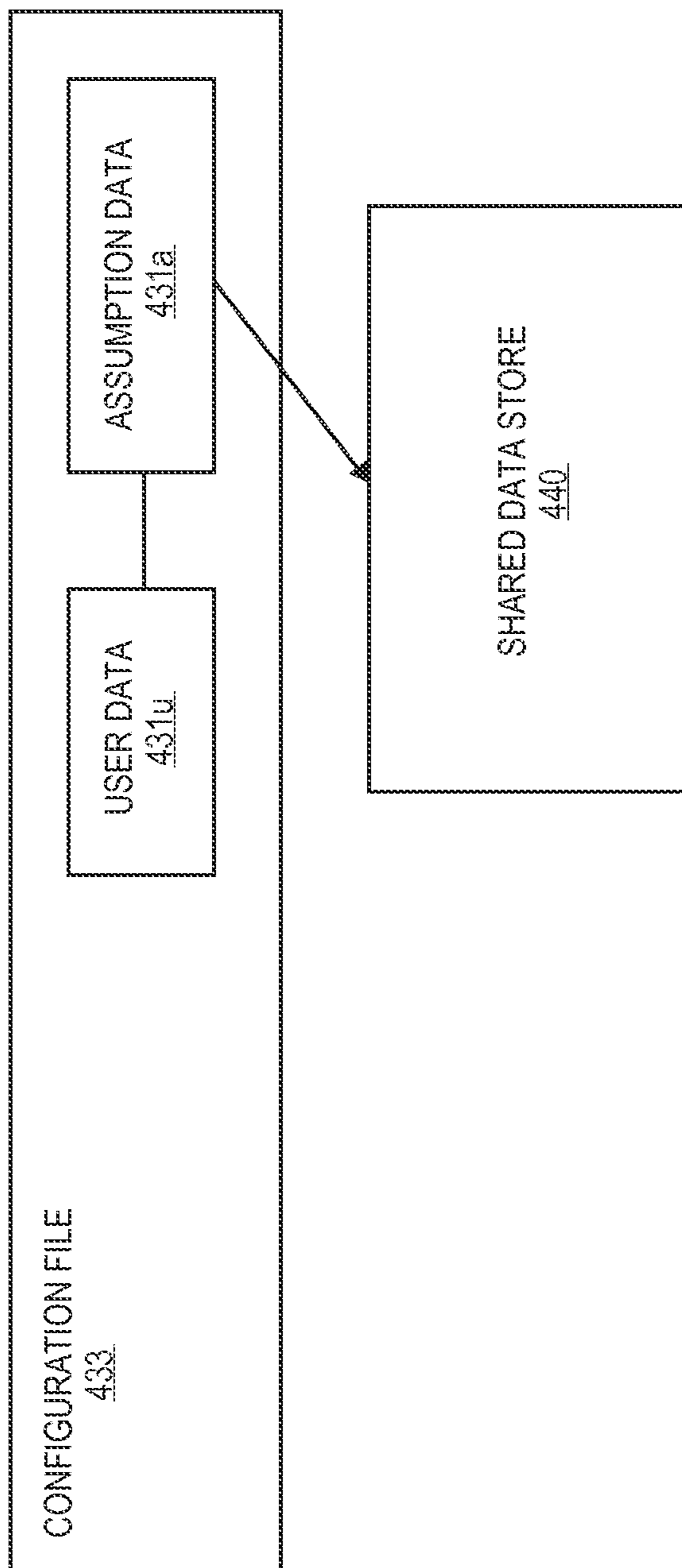


FIG. 8B

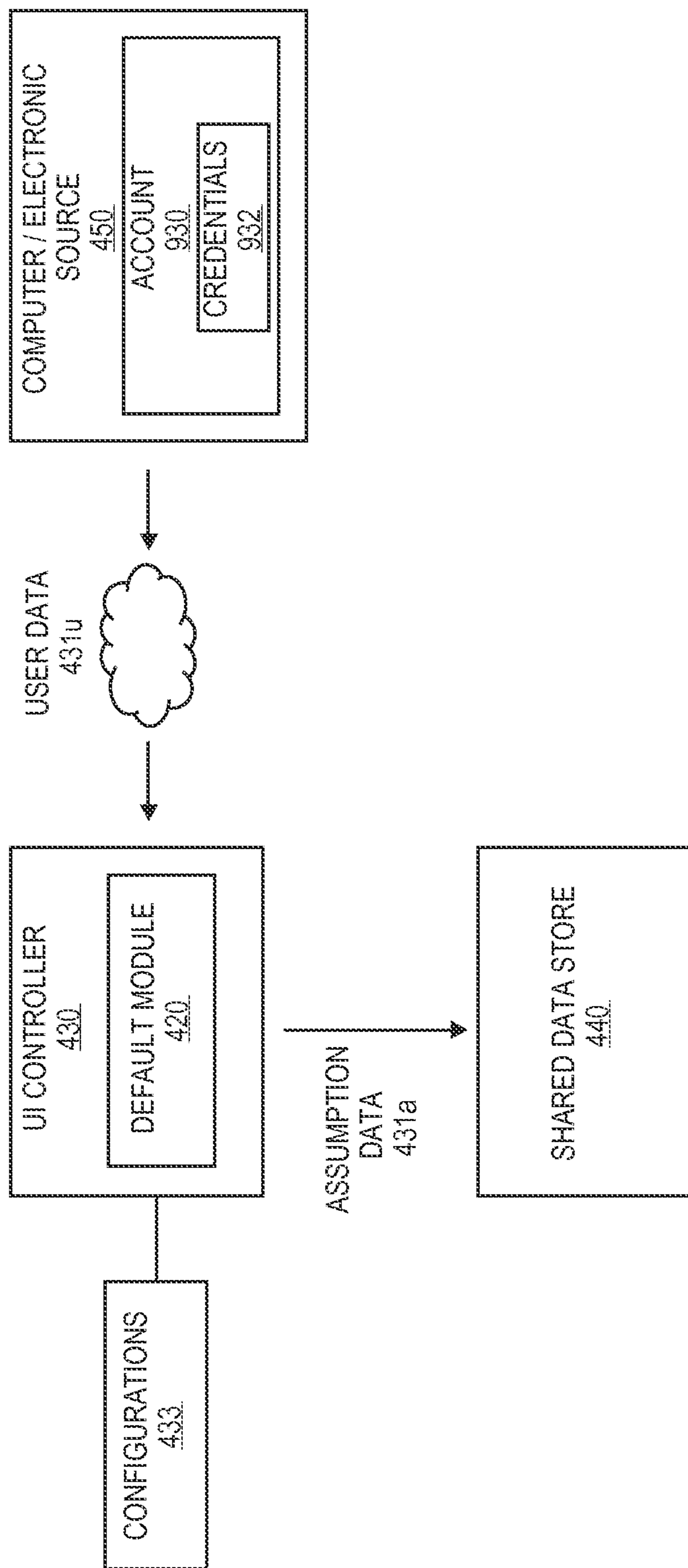


FIG. 8C

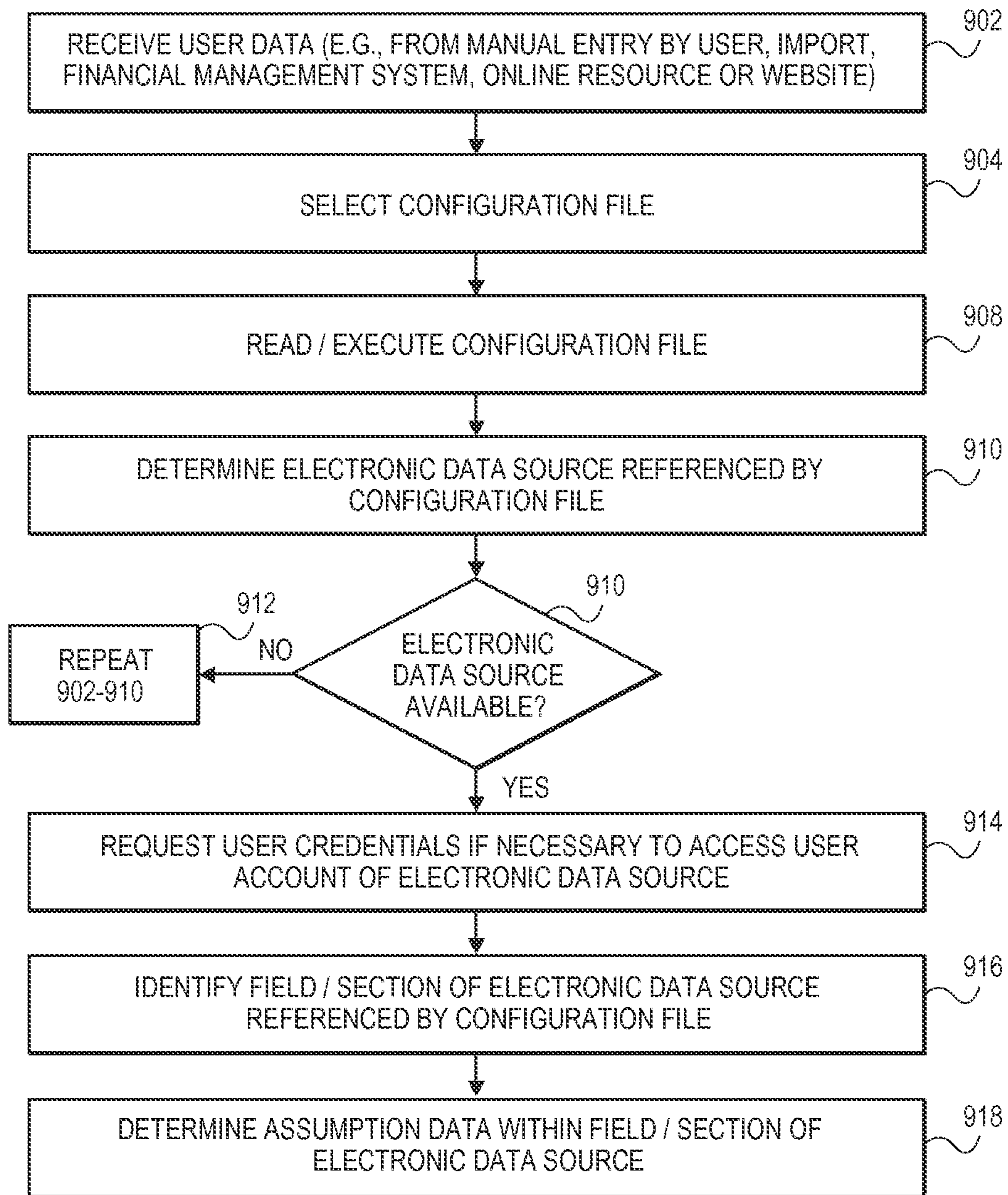


FIG. 9A

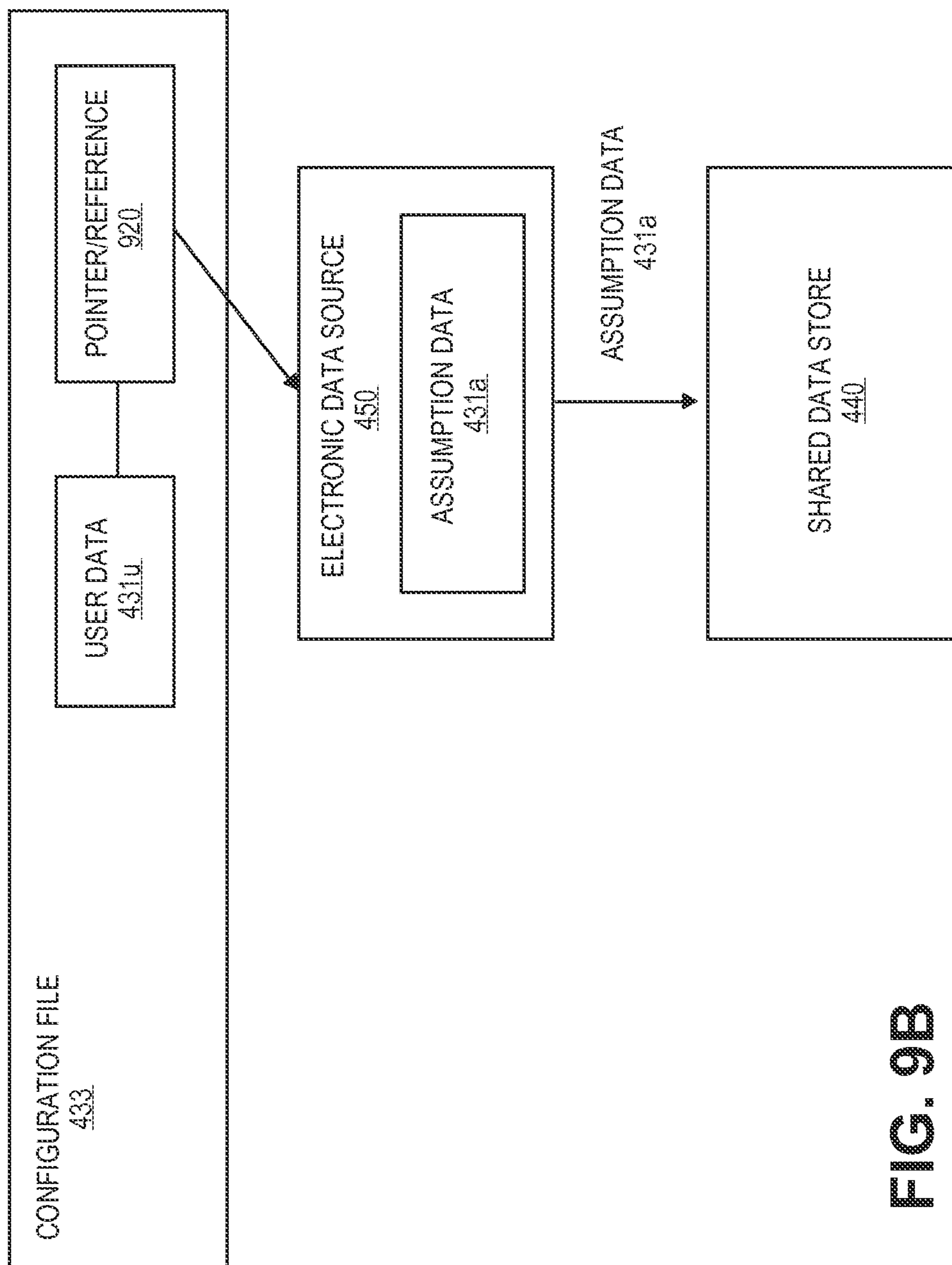


FIG. 9B

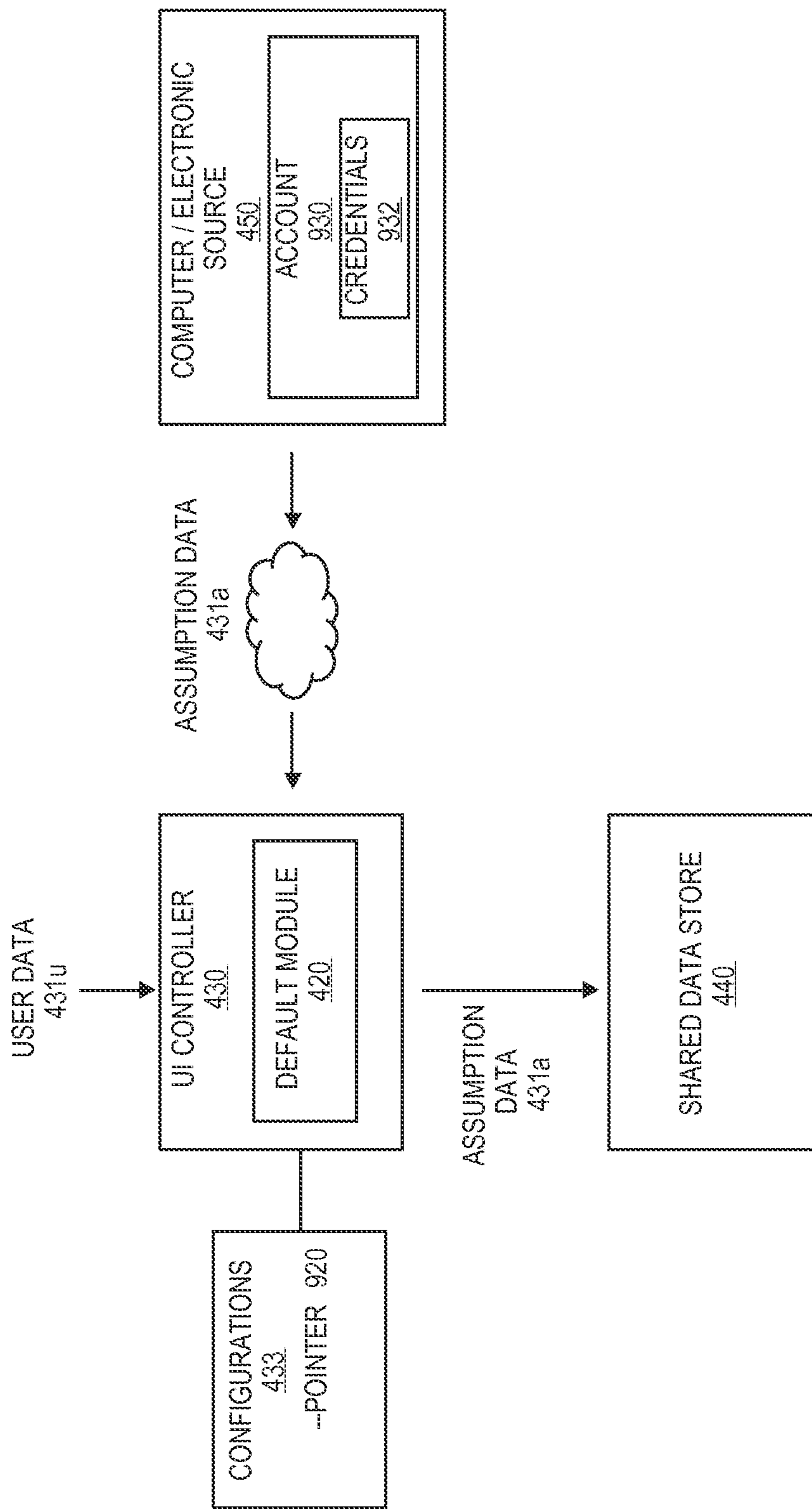
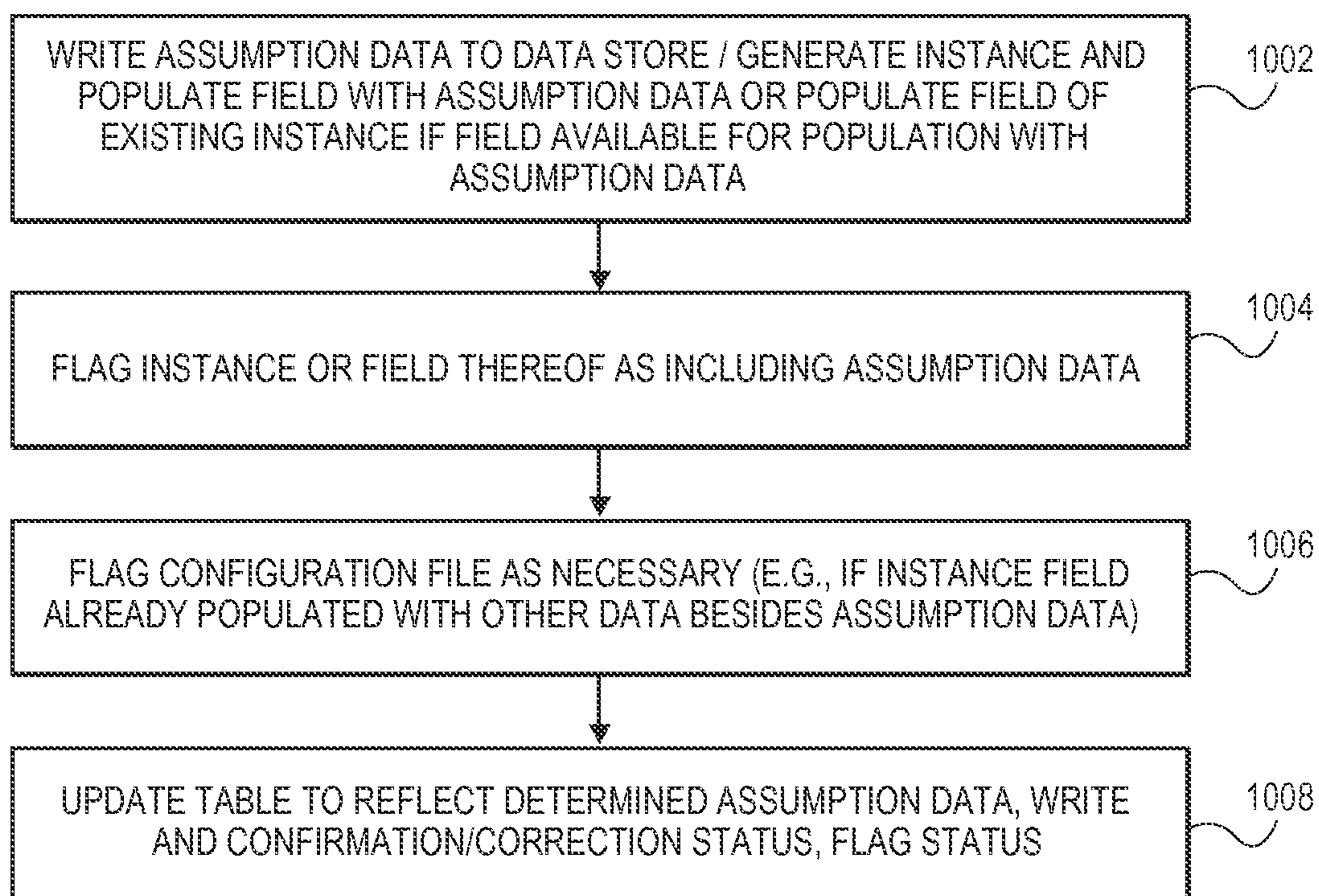


FIG. 9C

**FIG. 10**

Configuration File 1102a	Assumption Data 1102b	Assumption Data to User? 1102c	User Confirmed Assumption Data? 1102	Assumption Data Overwritten? 1102e	Configuration File Flag 1102f	Instance / Field Flag 1102g
Config A	Assumption A	Y	Y	N	N	Y
Config B	Assumption B	Y	N	Y	Y	Y
Config C	Assumption C	N	N	N	N	N

FIG. 11

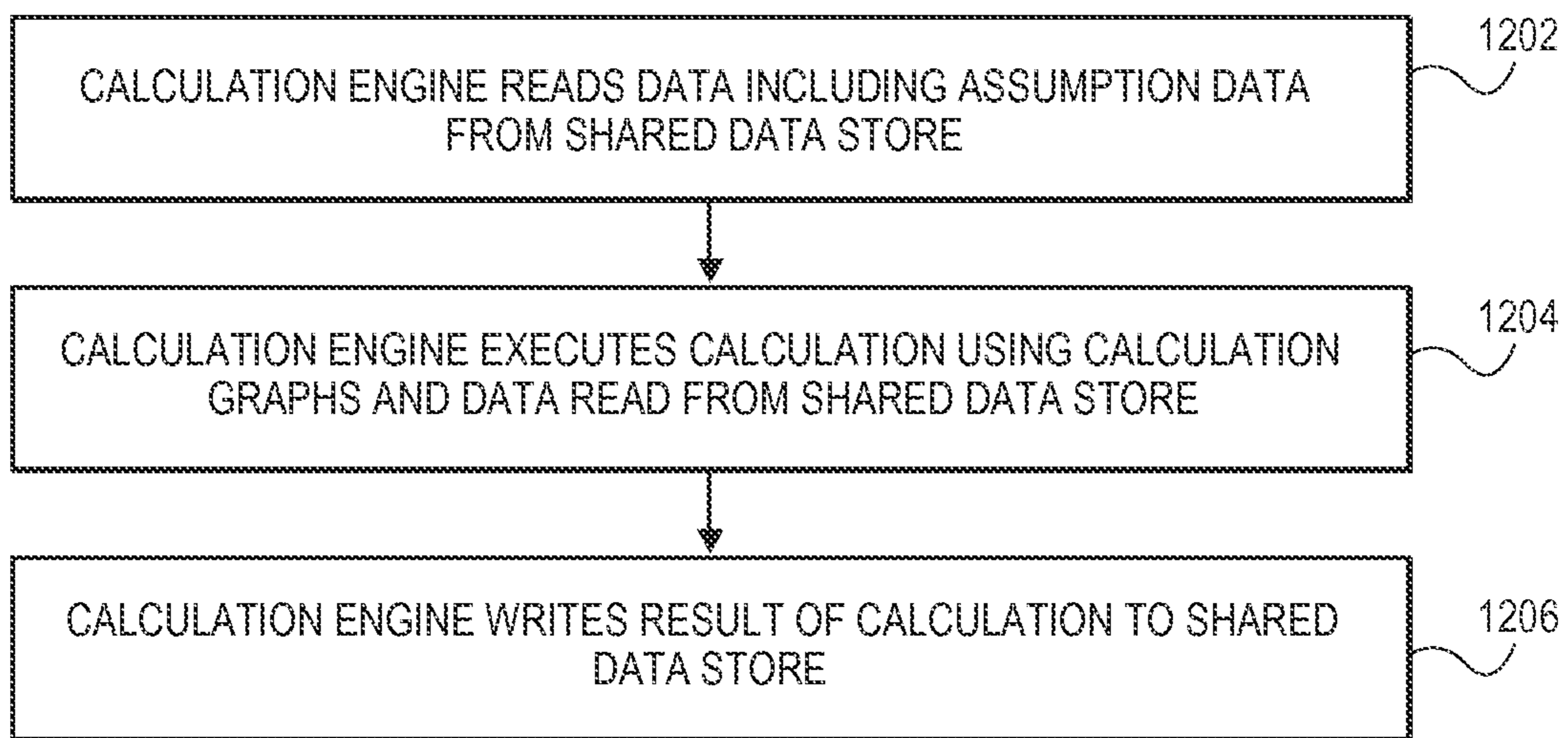
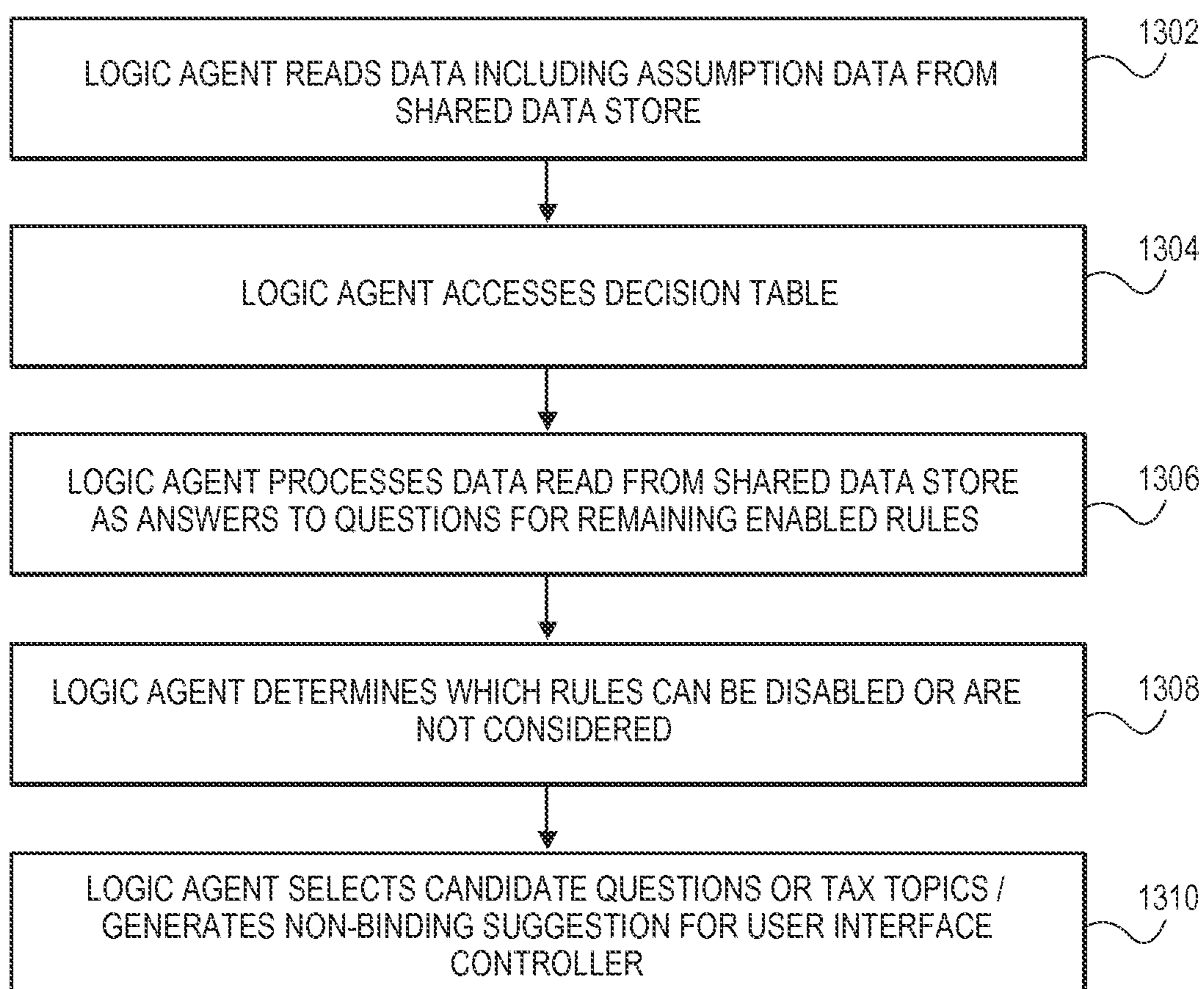


FIG. 12

**FIG. 13**

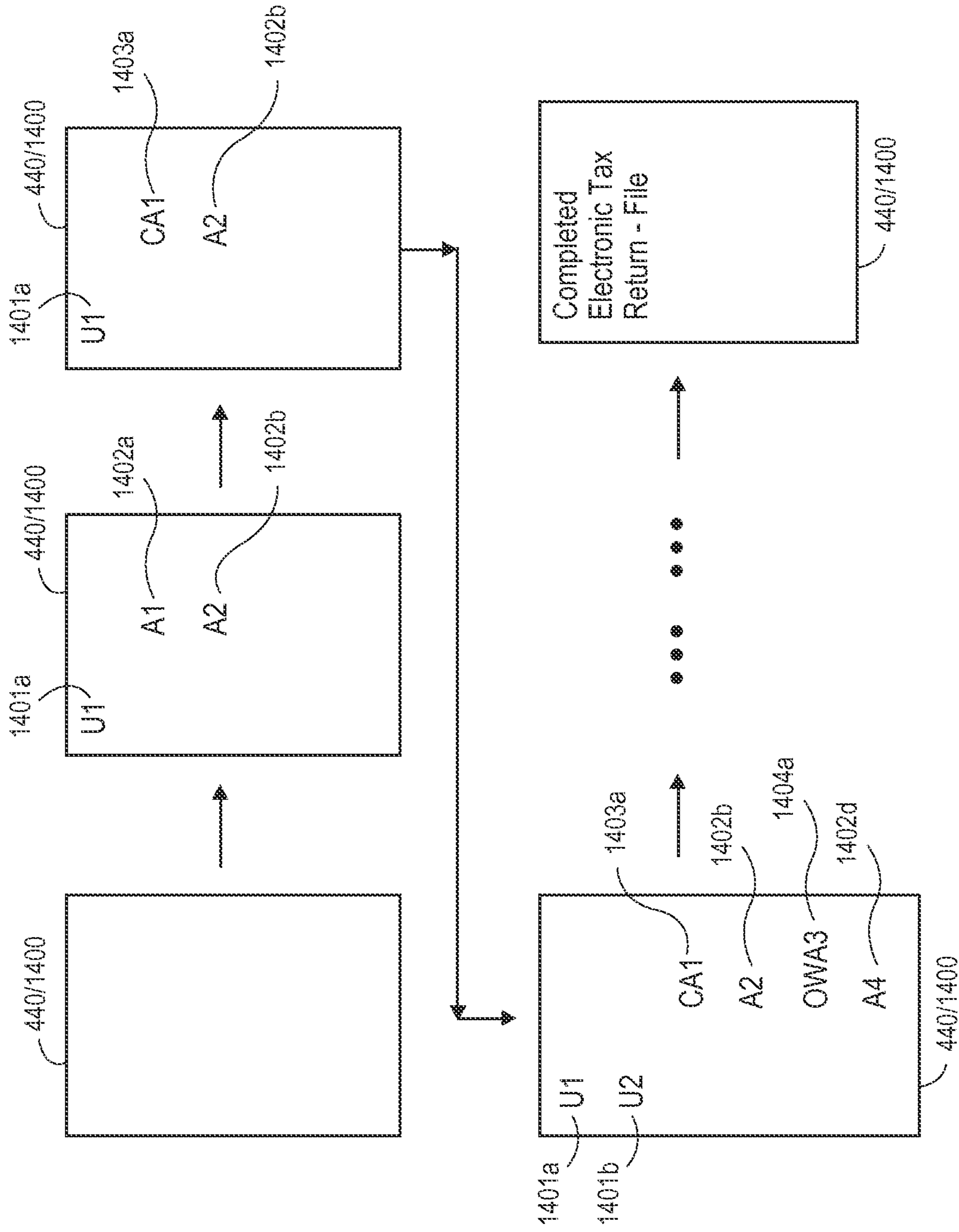


FIG. 14

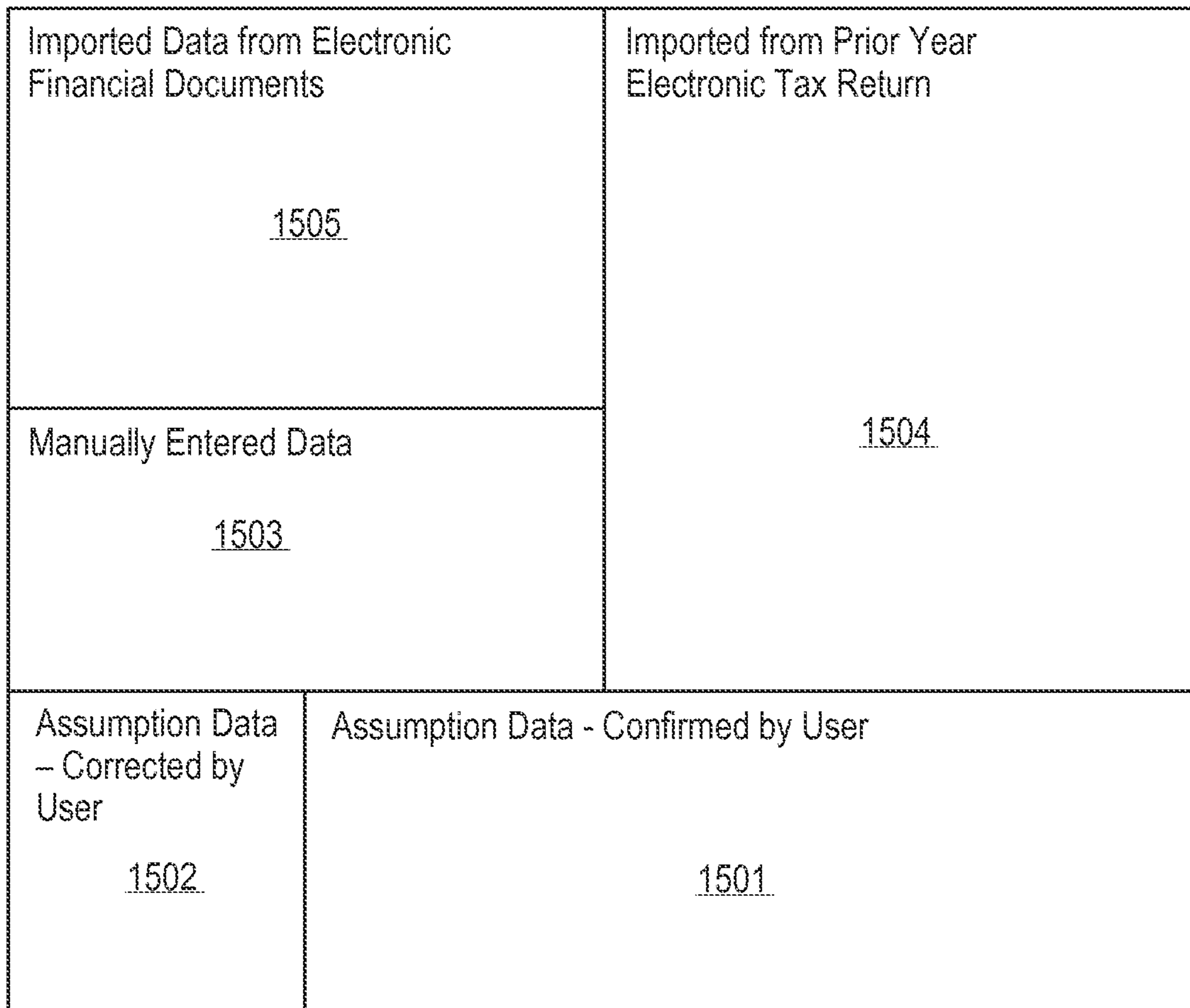


FIG. 15

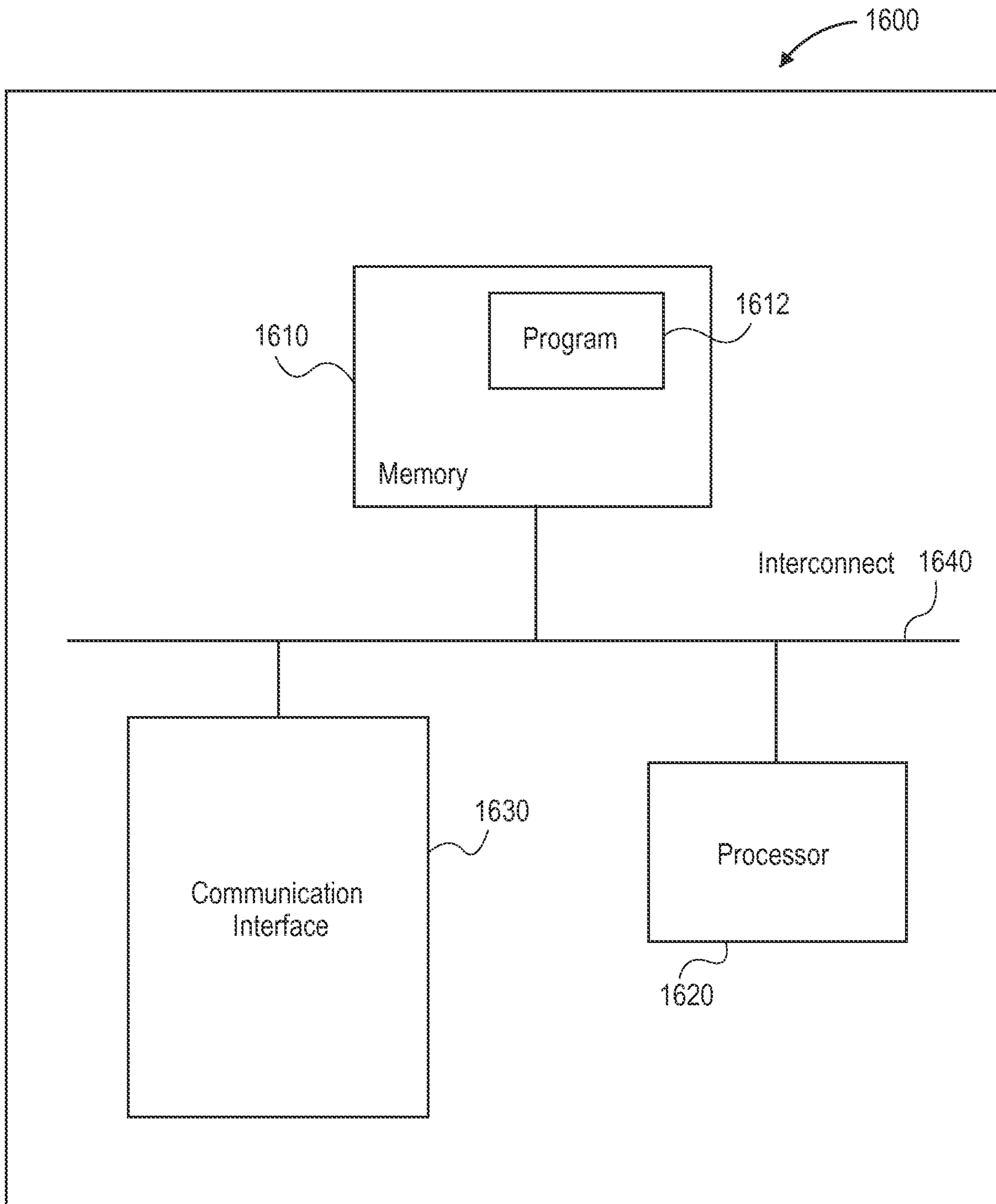


FIG. 16

**COMPUTER IMPLEMENTED METHODS
SYSTEMS AND ARTICLES OF
MANUFACTURE FOR PREPARING
ELECTRONIC TAX RETURN WITH
ASSUMPTION DATA**

SUMMARY

Embodiments are directed to determining how to automatically populate at least a portion of an electronic tax return for a user of a tax return preparation application.

Certain embodiments are directed to making inferences or assumptions about a user's electronic tax return data and changing whether and how certain questions or tax topics are presented to the user during preparation of an electronic tax return. Certain embodiments are directed to making these inferences or assumptions using heterogeneous data sources such that data received from one data source of a first type is used to identify or select assumption data in another data source of a different type.

Certain embodiments are directed to populating at least a portion of an electronic tax return with assumption data, presenting the assumption data to the user, and allowing a user to later modify or correct the assumption data if needed. Thus, embodiments deduce or assume answers or data for the user, and the user can then later confirm or correct the assumption data as needed.

Certain embodiments are directed to configurable assumption or default data of electronic tax returns, and utilizing assumption or default data until it is corrected or overwritten with different or corrected data from a trusted or pre-determined source.

Certain embodiments are directed to providing a starting point of electronic tax return data that can be used to determine which questions or tax topics to present to the user before the user has even entered any data. The starting point may be only assumption data or a combination of data received from a source and assumption data determined based at least in part upon the received or determined user data. Embodiments are also directed to populating other fields of an electronic tax return as the user progresses through interview screens, thus providing for automatic population in conjunction with user entry or user directed import of tax return data at various stages of preparation of the electronic tax return. Certain embodiments are directed to a modular system that provides for selective supplemental population of an electronic tax return based on user data.

Certain embodiments are also directed to tracking the use of assumption or default data such as when it was utilized, why it was selected for inclusion in an electronic tax return, and whether and when it was confirmed or corrected.

Certain other embodiments are directed to intelligent configuration file modification and/or generation in view of assumption or default data feedback. The feedback may involve how often assumption or feedback data is confirmed by a user versus how often it is corrected or modified.

One embodiment is directed to a computer-implemented method for assumption or default data management during preparation of an electronic tax return prepared by a user of a tax return preparation application. The method is performed by a computer executing the tax return preparation application comprising a user interface controller, a logic agent and a data store. One embodiment of a method comprises the user interface controller receiving user data, selecting a configuration file based at least in part upon the received data and reading or executing the selected configuration file to determine assumption data. The user interface

controller determines whether a field in the shared data store associated with the assumption data is populated, and if not, writes the assumption data to the associated field.

Other embodiments are directed to systems for managing assumption or default data during preparation of an electronic tax return prepared by a user of a tax return preparation application. According to one embodiment, a system comprises a user interface controller that accesses configuration files, and that is in communication with logic agent and a shared data store, and that is configured, operable or programmed to manage assumption or default data during preparation of an electronic tax return by a user of a tax return preparation application. The user interface controller is configured or programmed to receive user data, select a configuration file based at least in part upon the received user data and read or execute the selected configuration file to determine assumption data, determine whether a field in the shared data store associated with the assumption data is populated, and if not, write the assumption data to the associated field. System embodiments may also include one or more or all of system components such as the shared data store, the logic agent, a tax calculation engine, and configuration files. For example, one system embodiment comprises a user interface controller, a logic agent and a shared data store, wherein the user interface controller writes to the data store, the logic agent reads from the data store, and another system embodiment comprises these components and a tax calculation engine that reads from and writes to the shared data store.

Other embodiments are directed to a non-transitory computer-readable medium comprising instructions, which when executed by a processor of a computing device, causes the computing device to execute a process for assumption data management during preparation of an electronic tax return.

In a single or multiple embodiments, when the user interface controller determines that the associated field of the data store has already been populated, the data within the populated field is not overwritten by assumption data and instead the data within the populated field takes priority over the assumption data. However, when assumption data has been written to the data store, user interface controller may have the user confirm the assumption data to allow the user to correct it if needed, and if not corrected, the assumption data remains in the data store. Further, when assumption data initially populates a field of the data store, and other data for that field is subsequently received, the UI controller may overwrite the assumption data with the other data if, for example, the other data was received from a pre-determined source. Further, in a single or multiple embodiments, when the user interface controller receives additional data from an electronic source after writing assumption data to the data store, the user interface controller can present an interview screen to the user requesting the user to confirm whether the assumption data or the received data should be utilized and correct or overwrite the assumption data as necessary.

In a single or multiple embodiments, when the user interface controller writes assumption data, the assumption data may be written to a single field of a single instance, to respective fields of respective instances. The instance may be generated or initialized for this purpose, or the user interface manager may write to an existing instance. Writing by the user interface controller may involve writing only assumption data or a combination of two or more of assumption data, received data and imported data to the data store.

In a single or multiple embodiments, the user interface controller maintains and updates a data structure such as a

database or table with data about processing of assumption data. For example, the table may indicate the configuration file used to determine the assumption data, when the assumption data was first written to the data store, whether user confirmation of the confirmation data is needed, whether confirmation has been received, whether the assumption data was modified or corrected by the user, and whether configuration files or instances have been flagged to indicate the data as assumption data as opposed to other received or imported data. This may be used to track the effectiveness and accuracy of assumptions, and may also be used for automatic modification of a configuration file or generation of a new configuration file if different assumption data is to be utilized in view of tracked results to provide automated, intelligent feedback system for modifying or generating configuration files.

In a single or multiple embodiments, after the assumption data (and any other received or imported data) has been written by the user interface controller to the data store, a logic agent including a rule engine may read the data that is currently stored in the shared data store (which may be after calculations based on the runtime data are performed). The data read by the logic agent includes assumption data, and the logic agent processes the data to select a question or tax topic to present to the user based at least in part upon rules utilized by the logic agent and the assumption data. For example, the logic agent may access a decision table that specifies a plurality of rules and identifies a plurality of questions and respective answers to respective questions. Whether a rule applies is based at least in part upon answers in the form of the runtime data to respective questions. The logic agent determines which rules are applicable and which ones are not given the current runtime data that includes assumption data, and eliminates or disables at least one rule based at least in part upon the assumption data that is an answer to at least one question in the decision table, and selects a question or tax topic based at least in part upon remaining questions that may apply based at least in part upon one or more remaining rules of the plurality of rules.

In a single or multiple embodiments comprising or involving a tax calculation engine that also shares the data store with the user interface controller and the logic agent, the tax calculation engine reads runtime data from the data store including the assumption data and executes a calculation with the assumption data. The result that is based at least in part upon the assumption data is written to the data store, the logic agent can then read the current runtime data, including the result generated by the calculation engine from the data store that was based at least in part upon the assumption data, and use the decision table and runtime data to determine which rules are applicable and which ones are not, and select a question or tax topic based at least in part thereon to present to the user. According to one embodiment, the runtime data including assumption data is used to eliminate or disable certain rules which, in turn, affects which questions or topics are selected by the logic agent.

In a single or multiple embodiments, embodiments are used to initially partially populate an electronic tax return using assumption data, or a combination of assumption and received or imported data, stored to the shared data store. In other embodiments, assumption data is determined and written to the data storing at various times, e.g., in response to a trigger comprising receiving a pre-determined type of data or that the data of a pre-determined type satisfies pre-determined criteria.

In a single or multiple embodiments, processing of assumption data results in reduction in the number and/or

types of questions or tax topics presented to the user since the assumption data can be used to disable or eliminate certain rules which, in turn, eliminates certain questions or tax topics from consideration.

In a single or multiple embodiments, the received user data is used to identify or select one or more configuration files from a plurality of configuration files, and the selected configuration file(s) may specify the assumption data and/or serve as a pointer or reference to assumption data stored elsewhere such as in another electronic data source or document (such as a prior year filed electronic tax return) or to a field or data of an account the user has with a financial management system (such as QUICKBOOKS and MINT financial management system or an account the user has with an online social networking website such as LINKEDIN and FACEBOOK on-line social networking websites).

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a flow diagram of one embodiment of a computer-implemented method for using assumption data to populate at least a portion of an electronic tax return;

FIG. 2 is a flow diagram of one embodiment of a computer-implemented method for using assumption data to populate at least a portion of an electronic tax return and requesting and receiving user input regarding the assumption data;

FIG. 3 is a flow diagram of one embodiment of a computer-implemented method for using assumption data to populate at least a portion of an electronic tax return using a configuration file;

FIGS. 4A-B illustrate systems constructed according to embodiments for determining assumption data and populating at least a portion of an electronic tax return with assumption data;

FIG. 5 illustrates an example of a directed graph or completeness graph;

FIG. 6 is an example of a decision table generated based on the directed graph or completeness graph shown in FIG. 5, in which rows specify rules, and columns identify questions;

FIG. 7 illustrates an example of how a rule engine may process a decision table when determining which question to select;

FIG. 8A is a flow diagram illustrating one embodiment for determining assumption data within a configuration file, FIG. 8B depicts assumption data within a configuration file, and FIG. 8C illustrates an embodiment in which user data is received from an electronic source and assumption data from a configuration file is used to populate a data store;

FIG. 9A is a flow diagram illustrating one embodiment for determining assumption data using a pointer or reference within a configuration file to an electronic data source containing assumption data; FIG. 9B depicts assumption data within an electronic data source referenced by a configuration file pointer; and FIG. 9C illustrates an embodiment in which assumption data is received from an electronic data source through a network;

FIG. 10 is a flow diagram of one embodiment in which a user interface controller flags or maintains a table or other data structure regarding the status of assumption data;

FIG. 11 illustrates an example of a data structure utilized according to embodiments to track the status of assumption data;

FIG. 12 is a flow diagram showing how embodiments may utilize a calculation engine that generates a result that is written to a shared data store to which assumption data is also written;

FIG. 13 is a flow diagram showing how embodiments may utilize a logic agent that reads runtime data from a shared data store and that may include one or more of data provided or entered by a user, data imported from an electronic source, assumption data, and calculation result data;

FIG. 14 generally illustrates how assumption data may be determined from user data and included in an electronic tax return, and as preparation of the electronic tax return progresses, how assumption data can be corrected by the user or overwritten by other data;

FIG. 15 generally illustrates how an electronic tax return prepared according to embodiments may include different types of data from different types of sources, including assumption data determined according to embodiments, which may be confirmed or corrected by a user; and

FIG. 16 is a block diagram of components of a system constructed according to another embodiment for performing semantic dependency resolution.

DETAILED DESCRIPTION OF ILLUSTRATED EMBODIMENTS

Embodiments are directed to computer-implemented methods, computerized systems and articles of manufacture or computer program products for populating at least a portion of an electronic tax return with inferred or assumption data that is not entered by a user of a tax return preparation application utilized to prepare an electronic tax return.

In contrast to known tax preparation applications that utilize pre-determined questions and pre-determined question sequences, are structured according to a tree structure, and that involve manual programming of tax logic as part of interview screens such that interview screens and associated tax logic are bound together, embodiments involve a modular interview engine that employs a rule engine or logic agent and a user interface (UI) management module or controller that are loosely coupled to each other such that the rule engine is dedicated to using tax or tax return related rules to generate results in the form of non-binding suggestions or recommendations for the UI controller. The UI controller decides whether and when to generate or select an interview screen including the subject matter of the non-binding suggestion. A non-binding suggestions may refer to or include a candidate or potential question identified by the rule engine based on the rule engine's analysis of runtime data and rules specified by a decision table derived from a completeness graph representing tax law or tax return requirements. With embodiments, a default data module of or utilized by the UI controller receives certain user data and deduces or makes assumptions about electronic tax return data. The assumption data is stored to a shared data store for inclusion in the electronic tax return without the user having to enter the assumption data.

For example, the UI controller may look up a configuration file applicable to data received by the UI controller. The configuration file is read or executed to determine the assumption data specified thereby, or to reference a field of another an electronic data source such as a prior year electronic tax return, prior or current year tax document, or an on-line source such as data of an account the user has with a financial management system or online social networking

website. This assumption data, whether read from the configuration file or determined from another source referenced by the configuration file, is used to populate at least a portion of the electronic tax return such that the user is not required to manually enter data or import that data into the electronic tax return, thus reducing the time and effort required by the user to prepare an electronic tax return, while also avoiding transcription input errors, and improving the quality of filing by considering various aspects of a transaction. Further details regarding embodiments are described with reference to FIGS. 1-16.

Referring to FIG. 1, according to one embodiment, is directed to a computer implemented method in which inferred or assumption data (generally, assumption data) that is not entered by the user is determined by a user interface controller of a tax return preparation application executed by a computing apparatus at 102, and at 104, the UI controller writes the assumption data to a shared or community data store or dictionary of terms and their corresponding data, values or answers reflected in respective instances. At 106, the electronic tax return is populated with runtime or instance data provided by the UI controller such that at least a portion of the electronic tax return is populated without input or entry of the data by the user.

Referring to FIG. 2, in another embodiment, at 202, the UI controller of a tax return preparation application executed by a computing apparatus determines assumption data that is not entered by the user, and at 204, generates an interview screen asking user to confirm or correct the assumption data. At 206, the user's response is received by the UI controller, and at 208, the UI controller writes the confirmed assumption data or corrected data provided by the user to data store, and at 210, the electronic tax return is populated with confirmed assumption data or corrected data.

Referring to FIG. 3, in yet another embodiment, at 302, a UI controller receives user data, and at 304, selects a configuration file based at least in part upon the user data. At 306, the UI controller reads or executes the configuration file, and at 308, determines assumption data from within the configuration file or from another electronic data source using the configuration file. At 310, the UI controller writes the assumption data to a data store, and at 312, the electronic tax return is populated with runtime or instance data including the assumption data retrieved from the data store.

Referring to FIG. 4A, in a system 400a constructed according to one embodiment, a logic agent 410 comprising a rule engine 412 is in communication with a UI management module or controller (UI controller 430) including or utilizing a default module 420. The logic agent 410 and the UI controller 430 are in communication with an intermediate or shared data store 440. The logic agent 410 can read runtime or instance data 442 from the data store 440, the UI controller 430 receives user data 431u ("u" referring to "user" data), and determines assumption data 431a ("a" referring to "assumption" data) based at least in part upon the user data 431u and writes determined assumption data 431a to the data store 440. The user may be the taxpayer or an accountant or tax professional that is preparing the electronic tax return on behalf of the taxpayer. For ease of explanation, reference is made generally to the user of the tax return preparation application. The runtime or instance data 442, which includes assumption data 431a, is read from the data store 440 and used by the logic agent 410 in connection with analyzing rules 461 that may or may not apply given the runtime or instance data 442 that are answers to questions in a decision table 460.

FIG. 4B is a more detailed illustration of a system **400b** constructed according to one embodiment and that includes logic agent **410** comprising or executing a rule engine **412** based on runtime or instance data **442**, a UI controller **430**, a shared or intermediate data store **440**, and a tax calculation engine **480**.

The rule engine **412**, which may be a drools expert engine or other rule engine, is operable to receive runtime or instance data **442** (generally, runtime data **442**) that is based on a “dictionary” of concepts or terms of a data model or schema **446** (generally, schema **446**). For example, the schema **446** may specify, define or list tax-related concepts or terms, e.g., by names, type or category and hierarchy such as “name,” “social security number,” “citizenship,” “address,” “employer,” “interest,” “dividends,” “mortgage,” “deduction,” “tax credit,” “capital gain,” etc. The schema **446** may also specify a certain format of questions and answers (e.g., answer is binary (Y/N) or a number/value). An instance **447** is instantiated or generated for the collection of data received for each term or topic of the schema **446**. It will be understood that the schema **446** may define hundreds or thousands of such concepts or terms and may be defined in various ways, one example is based on an Extensible Markup Language (XML) schema. Non-limiting examples of schemas **446** that may be utilized in embodiments include Modernized E-File (MeF) and MeF++ schemas. It will be understood that embodiments may utilize various other schemas, and that these schemas are provided as non-limiting examples of a schema **446** that can be utilized in embodiments.

Runtime data **442** stored in the shared data store **440** is used, e.g., by the logic agent **410** or a separate population component, to populate corresponding fields of an electronic tax return or electronic tax form used to prepare an electronic tax return and may be received from or based on data from various data sources **450a-d** (generally, data source **450**). Examples of data sources **450** include user input, such as a user answer to a question presented in an interview screen, data imported from a prior year electronic tax return, data from online resources (such as online social networks or other online resources) and third parties databases or resources (such as government databases or documents, such as property tax records, Department of Motor Vehicle (DMV) records, etc. The rule engine **412** reads runtime data **442** including assumption data **431a** from the shared data store **440** and utilizes or executes rules **461** expressed in the decision table **460** using the runtime data **442** in order to determine which questions **462** still need to be presented to the user based on the runtime data **442** being answers to various questions **462** in the decision table **460**. As described in further detail below, data from a data source **450** may be user data **431u** that is received for the purpose of determining assumption data **431a**, and in other embodiments, an electronic data source **450** can serve as a source of assumption data **431a**.

Various types of rules **461** may be utilized by embodiments. For example, “tax” rules **461** that are utilized by the rule engine **412** may specify which types of data or tax documents are required, or which fields or forms of the electronic tax return should be completed. One example is if a taxpayer is married, then the electronic tax return is required to include information about a spouse. A tax rule **461** may involve if a certain box on a form (e.g., Box 1 of Form W2) is greater than a pre-determined amount, then certain fields of the electronic tax return (e.g., withholding fields) cannot be left empty and must be completed. Thus, tax rules **461** may reflect various tax requirements and are

expressed using the concepts or terms of the data model or schema **446**. As another example, other rules **461** may specify tax consequences or calculations and for this purpose, the logic agent **410** may be in communication with other modules or services **470a-d** (generally, “Additional Services” such as printing, e-filing, tax recommendations, calculation).

Rules **461** can also be used for the purpose of identifying or narrowing which questions **462** are identified as potential questions to be presented to the user. This may involve utilizing rules **461** based on one or more associated data structures such as a decision table **460**, which is based on a completion graph **465**, which recites, for example, the requirements of a tax authority or a tax authority rules or laws. The decision table **460** may be used for invalidation of potential questions **461** or topics and input or runtime data **442** requirements.

For example, referring to FIGS. 5-7, and as described in further detail in U.S. application Ser. No. 14/097,057, filed Dec. 4, 2013, entitled Methods Systems and Computer Program Products for Applying Generated Rules for Personalized Interview Experience” and U.S. application Ser. No. 14/206,834, filed Mar. 12, 2014, entitled “Computer Implemented Methods Systems and Articles of Manufacture for Suggestion-Based Interview Engine for Tax Return Preparation Application, the contents of which are expressly incorporated herein by reference as though set forth herein in full, a completeness or directed graph **465** reflects a flow of questions and answers of requirements, rules or laws a tax authority (as generally illustrated in FIG. 5), and the directed graph **465** is converted into a decision table **460** (as generally illustrated in FIG. 6). The decision table **460** reflects the question-and-answer flow of the completeness or directed graph **465**. In the illustrated example, rows of the decision table **460** define rules **461** (e.g., Rules R1-R5 as shown in FIG. 6), and columns of the decision table **460** indicate questions **462** (Q1-Q5 shown in FIG. 4, or Questions A-G shown in FIG. 6). Runtime data **442** serves as answers to questions **462** to fill in the decision table **460** and to determine or select questions **462** that can be selected by the rule engine **412** to be presented to the user. In one embodiment, statistical data **463** (which may be appended as columns to the rule-question decision table **460**, and received from or based on data collected by statistical/life knowledge module **490** described in further detail below) may indicate how likely a question **462** is to be relevant to a user given a set of runtime data **442** and may be utilized by the rule engine **442** when determining which question or topic **462** to select.

The logic agent **410** may also receive or otherwise incorporate information from a statistical/life knowledge module **490**. The statistical/life knowledge module **490** contains statistical or probabilistic data related to the current or other users of the tax return preparation application and/or other taxpayers. For example, statistical/life knowledge module **490** may indicate that taxpayers residing within a particular zip code are more likely to be homeowners than renters. The logic agent **410** may use this knowledge to weight particular topics or questions related to these topics when processing rules **461** and questions **462** and generating non-binding suggestions **411**. For example, questions **461** about home mortgage interest may be promoted or otherwise given a higher weight for users in particular zip codes or income levels. Statistical knowledge may apply in other ways as well. For example, tax forms often require a user to list his or her profession. These professions may be associated with transactions that may affect tax liability. For instance, a

taxpayer may list his or her occupation as “teacher.” The statistic/life knowledge module 70 may contain data that shows that a large percentage of teachers have retirement accounts such as 403(b) retirement accounts. This information may then be used by the logic agent 410 when generating its suggestions 411. For example, rather than asking generically about retirement accounts, the suggestion 411 can be tailored directly to a question about 403(b) retirement accounts.

Data that is contained within the statistic/life knowledge module 490 may be obtained by analyzing aggregate tax data of a large body of taxpayers. For example, entities having access to tax filings may be able to mine their own proprietary data to establish connections and links between various taxpayer characteristics and tax topics. This information may be contained in a database or other repository that is accessed by the statistic/life knowledge module 490. This information may be periodically refreshed or updated to reflect the most up-to-date relationships. Generally, the data contained in the statistic/life knowledge module 490 is not specific to a particular tax payer but is rather generalized to characteristics shared across a number of tax payers although in other embodiments, the data may be more specific to an individual taxpayer.

In one embodiment, the rule engine 412 reads the runtime data 442 and uses that data 442 as answers or inputs to the decision table 460 to eliminate rules 461 that may apply which, is used to eliminate candidate questions 462 from consideration rather than requiring the user to step through each question of a pre-determined sequence of questions in order to conclude that a particular tax situation or topic applies to the user.

For example, continuing with the example shown in FIGS. 5-6, and with further reference to FIG. 7, runtime data 442 that is known is used to determine which rows or rules 461 to cross out in the decision table 460. In the illustrated example, if it is known from the runtime data 442 that the answer to Question A is “Y” then rules 461 R3-R5 involving a “N” answer to Question A are not applicable, and those rows of the decision table 460 including a “N” answer to Question A (i.e., the bottom three rows in the illustrated example) can be crossed out or eliminated from consideration. This leaves two rows or rules 461 R1 and R2 in the illustrated example. Since questions B, D and E are “don’t care” or “not relevant” (indicated by “?”) and the answer to Question A is already known (“Y”), then the remaining questions 461 that require answers based on the current runtime data 442 include Questions C and G. Thus, the rule engine 412 uses the decision table 460 to select one or more rules 461 and determine or select one or more candidate questions 462 that are unanswered in view of the current runtime or instance data 442. While actual implementation may involve decision tables that are more complex, FIGS. 5-7 are provided for purposes of illustration and explanation.

The logic agent 410 provides to the UI controller 430 a non-binding suggestion 411 comprising a selected question or topic 461 to be addressed. In the illustrated embodiment, the UI controller 430 includes a UI or user experience manager 436 that determines how to process the non-binding suggestions 411 with the selected questions or topics 461 and generates an interview screen 432 for the UI or selects an interview screen 432 of the UI based on the question or topic 461 of the non-binding suggestion 411.

The UI controller 430, in one embodiment, includes a suggestion resolution element, a generator element, and an interview screen management element or flow/view management” module as described in U.S. application Ser. No.

14/206,834, previously incorporated herein by reference. The suggestion resolution element is responsible for resolving the strategy of how to respond to incoming non-binding suggestions 441 provided by the logic agent 410. For this purpose, the suggestion resolution element may be programmed or configured or controlled by configuration files 433 that specify whether, when and/or how non-binding suggestions 411 are processed (e.g., priority, sequence, timing, in a current, next or subsequent interview screen, random, never or ignore, not until additional data received).

For example, a configuration file 433 may specify one or more or all of how to process the non-binding suggestion 411 based on whether to consider or ignore the non-binding suggestion 411, when the non-binding suggestion 411 should be processed, content of an interview screen 432 based on the non-binding suggestion 411, how to present content or interview screens 432 based on the non-binding suggestion 411 in view of a form factor or type of a computing device utilized by the user of the tax preparation application or that executes the tax return preparation application embodying system components described above with reference to FIGS. 3-7, which non-binding suggestion(s) 411 have priority over others or a sequence of non-binding suggestions 411, which configuration files 433 have priority over others or a sequence of configuration files 433 in the event that multiple configuration files 433 may potentially be used for purposes of configuration conflict resolution. For example, a configuration file 433 may specify that a non-binding suggestion 411 should be processed or addressed immediately or on the spot, next, at a later time, after certain or other additional tax return data has been received, or at the end of the process. Configuration files 433 may also specify whether non-binding suggestions 411 should be processed individually or aggregated for processing as a group with resolution of any priority issues. As another example, a configuration file 433 may specify that content should be adjusted or whether or how non-binding suggestions 411 should be processed in view of a screen size or dimension of a type of computing device that executes the tax preparation application since questions or more content may be more suitable for computing devices such as laptop and desktop computers, which have larger screens than smaller mobile communication devices such as smartphones.

The UI controller 430 generates the resulting user interaction or experience or creates or prepares an interview screen 432 or content thereof based on a library of visual assets such as pre-programmed interview screens or interview screens that are templates and that can be populated by the UI controller with a question 461 or topic of a non-binding suggestion 411.

With continuing reference to FIG. 4, the tax calculation engine 480 reads the current runtime data 442 from the shared data store 440, and uses this data as inputs into respective nodes of one or more calculation graphs 482, and respective results or values are calculated with associated functions that are executed with the input data. New or resulting data is written back by the tax calculation engine 480 to the shared data store 440 for subsequent reading by the logic agent 410. For example, if the runtime data 442 received thus far includes wages and interest earned from two savings accounts, a function for calculating Adjusted Gross Income (AGI) would sum this wage and interest data, and the resulting AGI value (based on the runtime data received thus far) is written back to the shared data store. As other types of AGI data are received or imported, the tax

calculation engine **480** will run the calculation graphs **482** again to calculate a new AGI value, which would then be stored to the data store **482**.

Additionally, according to embodiments, a default or module **420** (generally, default module **420**) may be a component of the UI controller **430** as shown in FIGS. 4A-B or utilized by the UI controller **430** or component thereof for purposes of deducing, inferring or making assumptions about what electronic tax return data applies to a user given certain user data **431u** received from one or more data sources **450**. Thus, embodiments involve a default manager **420** that determines data for the electronic tax return without requiring the user to enter that data, thus providing partial automatic population of the electronic tax return, as described in further detail below with reference to FIGS. 8A-16.

Referring to FIGS. 8A-C, in a computer-implemented method according to one embodiment, at **802**, the UI controller **430** receives user data **431u**. The user data **431u** may be data of one or more types from one or more sources **450** including one or more of data that is manually entered into a field of an interview screen by the user, data that is imported from a prior year electronic tax return, data that is imported from a financial management system such as QUICKEN financial management system available from Intuit Inc., data from another online resource or website such as a search result generated using a search engine such as GOOGLE search engine, and data of an account the user has with an online social networking website such as facebook.com or linkedin.com. At **804**, the UI controller **430** uses the received user data **431u** to select one or more configuration files **433**, and at **806**, reads or executes the one or more configuration files **433** to determine or identify assumption data **431a** included, programmed or encoded within the configuration files **433**. The assumption data **431a** specified by the configuration file **433** can be programmed by the host and based at least in part upon statistical data of other users of the tax return preparation application for prior and/or current tax years.

For example, referring to FIG. 8B, which generally depicts a configuration file **433** that identifies certain user data **431u** or user data **431u** of a certain type or category. As discussed above, a configuration file **433** utilized to determine assumption data **431a** may also be used for purposes of processing non-binding suggestions **411**, or separate configuration files **433** may be used for processing non-binding suggestions **411** and determining assumption data **431a**.

Thus, when such user data **431u** is received by the UI controller **430**, the UI controller **430** searches configuration files to identify one or more configuration files that include the user data **431**, and one or more configuration files **433** are selected by the UI controller **430**. The user data **431u** may be received through an interview screen or import using a local file, or accessed from a remote resource through a network as shown in FIG. 8C. In the embodiment illustrated in FIG. 8B and as shown in FIG. 8C, the configuration file **433** includes the associated assumption data **431a** associated with or linked with user data **431u** such that, at **806**, the UI controller **430** reads the assumption data **431a** from the selected configuration file **433** and writes the assumption data **431a** to the shared data store **440** at **808**. Configuration files **433** can be programmed and modified by the host of the system or the UI controller **430** can track assumption data **431a** for processing for intelligent modification of a previously used configuration file **433** or generation of a new configuration file **433**.

Referring to FIGS. 9A-C, according to another embodiment, rather than having assumption data **431a** encoded or included within the configuration file **433** and read by the UI controller **430** from the configuration file **433**, the configuration file **433** instead includes a reference or pointer **920** to an electronic data source **450** that includes the assumption data **431a**. Thus, at **902**, the UI controller **430** receives user data **431u**, e.g., from manual entry by user, import, financial management system, online resource or website or other source **450**, and at **904-906**, as discussed above, selects a configuration file **433** based on the received user data **431u**. The selected configuration file **433** is read or executed, and at **908**, the UI controller **430** determines an electronic data source **450** that is referenced by or pointed to by configuration file **433** and that includes the assumption data **431a**. For this purpose, the configuration file **433** reference or pointer **920** may identify the electronic data source **450**, such as an electronic document, file, or webpage, and the document's location, such as a server or computer hosting the electronic data source, a website address, a directory, etc. The configuration file **433** may also specify a particular section of the electronic data source **450** or document such as a field, section, page or paragraph thereof. At **910**, the UI controller **430**, after determining an electronic data source **450** that contains the referenced assumption data **431a**, searches for the identified electronic data source **450** to determine whether it is available and/or accessible. If not, then at **912**, no action is taken, and steps **902-910** may be repeated as other user data **431u** is received. If so, such as when the UI controller **430** is able to locate a website or file location referenced by the configuration file pointer **920**, then at **912**, the UI controller **430** determines whether the electronic data source **450** is accessible or whether the user's login credentials **932** are needed, e.g., to access an account **930** the user has with an on-line social networking website such as facebook.com or linkedin.com, or to access an account **930** the user has with a financial management system such as QUICKBOOKS, QUICKEN and MINT financial management systems. If necessary, the UI controller **430**, upon determining that the electronic data source **450** is not accessible, may request and receive user credentials **932** if the UI controller **430** does not already have the user's credentials **932** for that electronic data source **450**. At **916**, having located the electronic data source **450**, and obtained user credentials **932** if necessary, the UI controller **430** identifies the field or other section of the electronic data source **450** that was identified by the configuration file pointer **920**, and at **918**, determines or reads the identified assumption data **431a** from the identified field or section of the electronic data source **450**.

Embodiments may involve the UI controller **430** receiving user data **431u** that was manually entered **450a** or provided by the user, and the source of assumption data **431** is an electronic data source **450**. Embodiments may also involve the UI controller **430** receiving user data **431u** that is from an electronic data source **450**, and the source of assumption data **431** is another electronic data source **450**.

Referring to FIG. 10, at **1002**, assumption data **431a**, whether read from the configuration file **433** as described with reference to FIGS. 8A-C, or read from an electronic data source **450** referenced or identified by the configuration file pointer **920** as described with reference to FIGS. 9A-C, is written by the UI controller **430** to the shared data store **440** assuming the identified location within the data store **440** is available for population. This may involve writing the assumption data **431a** to the associated field of a newly initialized instance **442** based on the schema **446** of the

shared data store 440, such that a pre-determined field of the instance 442 being populated with the assumption data 431a, or writing the assumption data 431a to the associated field of an existing instance 442 of the schema 446 of the shared data store 440, or both. Further, assumption data 431a may apply to different types of schema 446 data such that the same assumption data 431a can be included in multiple instances 442, e.g., certain data may be included in an instance 442 for Form W-2 and the same data may be included in an instance 442 for Form 1099 DIV, or for instances for the same tax form.

At 1004, the UI controller 430 may flag the instance 442, or the field of the instance 442 that is populated with assumption data 431a, to indicate that the data was assumed, inferred or derived, as opposed to being entered or provided by the user or imported from an electronic data source 450 such as a financial document or prior year electronic tax return. Additionally, or alternatively, the UI controller 430 may also flag the configuration file 433, e.g., if the field that was to be populated with the determined assumption data 431a was already populated with other data 442, in which case the existing data is not overwritten by the assumption data 431a, and the configuration file 433 can be identified by the UI controller 430 as requiring possible modification or review due to the potential conflict between the determined assumption data 431a and data 442 already present in the identified field.

At 1008, the UI controller 430 updates a data structure such as a table or database reflecting these flags and status of other matters such as identifying the assumption data 431a, whether it was written to the data store 440, the status of instance or field flags and the status of configuration file flags, and whether the assumption data 431a was confirmed and/or corrected by the user.

For example, referring to FIG. 11, a data structure, database or table (generally, table) 1100 may include columns 1102a-g identifying the configuration file 433 that was utilized, the assumption data 431a of the configuration file or identified by the configuration file pointer 920, whether the assumption data 431a was presented to the user for confirmation, whether the user responded by confirming the assumption data 431, data provided by the user to correct assumption data 431a, whether assumption data 431a that was previously stored to the data store 440 was overwritten by data 442 from another source 450, and whether the configuration file 433 or instance 442 or field thereof have been flagged. For example, before storing the assumption data 431a to the data store 440, the UI controller 430 may generate or select an interview screen that is presented to the user and that requests the user to confirm or correct the assumption data 431. The user's response can then be recorded in the table 1100, and if the assumption data 431a is confirmed, it can be written to the data store 440, otherwise if the assumption data 431a is corrected, the corrected data can be written to the data store 440 instead and the configuration file 433 including the assumption data 431 that was corrected can be flagged. In the event that the user corrects assumption data 431a that was already stored to the data store 440, the stored assumption data 431a can be overwritten such that the corrected data is properly stored in the data store 440.

Referring to FIG. 12, and referring again to FIG. 4B, having determined or identified assumption data 431a, stored the data to the data store 440, and updated the data structure 1100 as needed, at 1202, the calculation engine 480 reads the runtime data 442 from the data store 440, which includes assumption data 431 written by the UI controller

430 to the data store 440, and at 1204, executes a calculation using calculation graphs 482 and the data 442 read from the data store 440. At 1206, the calculation result 481 is written by the calculation engine 480 to the data store 440.

Depending on whether any runtime data 442 was initially available, the calculation engine 480 may operate on only assumption data 431a, or assumption data 431a and data from other sources 450 such as data entered by the user, imported from a prior year tax return, imported from an electronic file of a financial management system. Further, as other assumption data 431a is determined and written to the data store 440 as additional user data 431u is received by the UI controller 430, the calculation engine 480 may operate on various types of assumption data 431a that was written to the data store 440 at various times.

Referring to FIG. 13, and referring again to FIG. 4B, at 1302, the logic agent 410 reads the runtime data 442, which may include one or more of assumption data 431a, other user data 431u, data from one or more sources 450 and any result 481 generated by the calculation engine 480, accesses the decision table 460 at 1304, and at 1306, processes the runtime data 442 read from shared data store 440 as answers to questions 462 for remaining enabled rules 461, and at 1308, determines which rules 461 can be eliminated or disabled (e.g., as previously described with reference to FIGS. 5-7). At 1310, the logic agent 410 determines which questions or topics 462 remain or are eligible to be asked of the user, and these questions or topics 462 are the subject of one or more non-binding suggestions 411 generated by the logic agent 410 and provided to the UI controller 430, which determines whether and/or when to present the questions or topics 461 to the user. In response to the presented questions or topics, the user may provide various answers, and this additional user data 431u is received by the UI controller 430, and the additional user data 431u may again be used identify configuration files 433 for determining other assumption data 431a, and the process repeats as the UI controller 430 receives additional user data 431u.

FIG. 14 generally illustrates how embodiments may be utilized to prepare at least a portion of an electronic tax return 1400. Referring to FIG. 14A, in which no data is stored to the data store 440 and no data is in the electronic tax return 1400, the UI controller 430 may receive user data U1 1401 as a starting point, and determine assumption data A1 and A2 1402a-b. The UI controller 430 may request the user to confirm or correct A1 and A2 1402a-b and the user may change A1 1402a to Corrected A1, or CA1 1403a, but confirm that A1 1402a is correct. Thus, U1 1401a, A1 1402a and CA1 1403a are stored to the data store 440. The UI controller 430 may then receive additional user data U2 1401b, which is used to determine additional assumption data A3 1402c and assumption data A4 1402d. Both assumption data A3 1402c and assumption data A4 1402d may be confirmed by the user as being correct, but at a later time, the user may have imported data from an electronic source 450, such as a prior year electronic tax return, thus OverWriting assumption data A3, otherwise indicated as OWA3 1404a if, for example, the overwriting data 1404a is from a pre-determined source 450 or a source considered to be sufficiently reliable for overwriting the assumption data.

Thus, as generally illustrated in FIG. 15, as preparation proceeds, the data store 440 may include a combination of inferred or assumption data 1501 that was confirmed by the user as being correct, assumption data that was changed or corrected 1502 by the user, user data 1503 that was manually entered by the user or imported from an electronic document, and data 1504, 1505 that was imported from an

electronic source such as an electronic tax return for a prior year or from a financial document or file of a financial management system utilized by the user.

When the electronic tax return is populated and completed by the logic agent **410** or by the direction of the logic agent **410** or using one or more components or services **470** as applicable, the electronic tax return can be printed and/or filed with a tax authority such federal state or local tax authority or other tax collecting entity such as Internal Revenue Service and Franchise Tax Board of the State of California.

Following are examples of how embodiments may be implementing using the methods and systems describe above. In one embodiment, the user has an account **930** with an online social networking website such as linked.com. The user may provide login credentials **932** (e.g., username and password) to the tax return preparation application for use by the UI controller **930**. Thus, when the UI controller **930** connects with the account **930** using the credentials **932**, the UI controller **930** receives user data **431u** such data from the user's profile, such as the user has a Masters of Business Administration (MBA) from Harvard University and based on the city and state information, or separately provided residence address and zip code information, the UI controller **430** is configured to search for a configuration file **433** that is for criteria matching or substantially matching user data **431u** of one or more of education, university and zip code. The configuration file **433** may include assumption data **431a** that based on one or more of these user data **431u**, it is assumed that the user has an income greater than a pre-determined income amount such that it can be further assumed that earned income credit will not apply. Thus, the assumption data **431a** of "No" for earned income credit is written by the UI controller **430** to the data store **440** based on the assumption data **431a** within the selected configuration file **433**. Alternatively, the UI controller **430** may refer to a source **450** that provides average incomes for zip codes, lookup the zip code, determine the average income, and use that average income as additional data for the configuration file **433** or another configuration file **433**, leading to an assumption of "No" for earned income credit. Thus, when the logic agent **110** eventually reads the runtime data **442** from the data store **440** including "No" as an answer to "Does earned income credit apply" then rules **462** that are based on a "Yes" answer to "Does earned income credit apply" can be eliminated or disabled, thus eliminating these questions **462** and related questions from consideration. Thus, embodiments are able to change the manner in which interview questions **462** are presented to the user and can adapt as user data **431u** is received. Further, for the questions or topics **462** that are not eliminated, the logic agent **110** can generate a non-binding suggestion **411** for the UI controller **430**, which may process the suggestion **411** to generate an interview screen explaining "We believe these sections do not apply to you, correct?" to which the user can respond by confirming or indicating that certain sections do apply to the user.

As another example, the user may manage finances using a financial management system such as QUICKBOOKS or MINT financial management system, and has provided the user's credentials **932** to the user's account **930** with the tax return preparation application so that the UI controller **430** can access an electronic data source **450** in the form of the user's QUICKBOOKS or MINT account **930**. Based on the data in the user's account **930**, e.g., transaction data reflecting purchases for hotels or airfare, the UI controller **430** can utilize that user data **431u** to look up an applicable configu-

ration file **433**, which is used to determine assumption data **431a** about travel expenses, and to eventually ask questions about the user's expenses as potential deductions.

As a further example, the user may indicate an occupation of massage therapist, and when the UI controller **430** identifies an applicable configuration file **433**, the configuration file **433** is used by the UI controller **430** to determine assumption data **431a** regarding costs for professional equipment in the form of a massage table.

As yet another example, the UI controller **430** may receive user data **431u** in the form of the user's name, and execute an internet search, such as a GOOGLE search, or access a database of public records or military records or other electronic data source **450**, to search for the person's name. A result may be that the user was in fact in the military. Having this user data **431u**, the UI controller **430** searches the library of configuration files **433** to select one or more configuration files **433** that are applicable to user data **431u** "military" and reads or executes the one or more configuration files **433** to determine that certain ranges of specified deductions are likely to apply to the user. Having this information, the UI controller **430** may process non-binding suggestions **411** including questions **462** regarding the identified deductions.

As a further example, if the user data indicates **431u** that the user is a "student" then the configuration file **433** may indicate various assumption data **431a** such as the student rents, does not own a home, does not have mortgage interest, does not have property tax, does not have children, and the UI controller **430** can have the user confirm or correct these assumptions **431a** before writing them to the data store **440**.

FIG. **16** generally illustrates certain components of a computing device **1600** that may be utilized to execute or that may embody components of embodiments. For example, the computing device may include a memory **1610**, program instructions **1612**, a processor or controller **1620** to execute instructions **1612**, a network or communications interface **1630**, e.g., for communications with a network or interconnect **1640** between such components. The memory **1610** may be or include one or more of cache, RAM, ROM, SRAM, DRAM, RDRAM, EEPROM and other types of volatile or non-volatile memory capable of storing data. The processor unit **1620** may be or include multiple processors, a single threaded processor, a multi-threaded processor, a multi-core processor, or other type of processor capable of processing data. Depending on the particular system component (e.g., whether the component is a computer or a hand held mobile communications device), the interconnect **1640** may include a system bus, LDT, PCI, ISA, or other types of buses, and the communications or network interface may, for example, be an Ethernet interface, a Frame Relay interface, or other interface. The network interface **1630** may be configured to enable a system component to communicate with other system components across a network which may be a wireless or various other networks. It should be noted that one or more components of computing device **1600** may be located remotely and accessed via a network. Accordingly, the system configuration provided in FIG. **16** is provided to generally illustrate how embodiments may be configured and implemented.

Method embodiments or certain steps thereof, some of which may be loaded on certain system components, computers or servers, and others of which may be loaded and executed on other system components, computers or servers, may also be embodied in, or readable from, a non-transitory, tangible medium or computer-readable medium or carrier,

e.g., one or more of the fixed and/or removable data storage data devices and/or data communications devices connected to a computer. Carriers may be, for example, magnetic storage medium, optical storage medium and magneto-optical storage medium. Examples of carriers include, but are not limited to, a floppy diskette, a memory stick or a flash drive, CD-R, CD-RW, CD-ROM, DVD-R, DVD-RW, or other carrier now known or later developed capable of storing data. The processor **1620** performs steps or executes program instructions **1612** within memory **1610** and/or embodied on the carrier to implement method embodiments.

Although particular embodiments have been shown and described, it should be understood that the above discussion is not intended to limit the scope of these embodiments. While embodiments and variations of the many aspects of the invention have been disclosed and described herein, such disclosure is provided for purposes of explanation and illustration only. Thus, various changes and modifications may be made without departing from the scope of the claims.

What is claimed is:

1. A computer-implemented method executed by a computerized form preparation application operable to prepare form, the method comprising:

receiving user data by a modular user interface controller of a computerized form preparation application comprising computer-executable instructions executed by a processor of a computer, the modular user interface controller being in communication with a shared data store configured to store instances comprising form data structured according to a schema, the user data comprising data received from one or more data sources coupled to the computer;

selecting, by the modular user interface controller, a configuration file from a plurality of configuration files based at least in part upon the received user data being included in the selected configuration file,

reading or executing, by the modular user interface controller, the selected configuration file;

determining, by the modular user interface controller, assumption data based on reading or executing the selected configuration file, wherein the assumption data is not manually entered by the user and is from a source other than a corresponding field of a prior completed form of the user;

determining, by the modular user interface controller, that a first field of an instance generated based on a schema of a shared data store and associated with the assumption data is not populated;

in response to determining by the modular user interface controller that the first field associated with the assumption data is not populated, the modular user interface controller performing the steps of:

writing the assumption data determined by reading or executing the selected configuration file to the first field of the instance in the shared data store,

flagging, in the shared data store, the first field of the instance populated with the assumption data to indicate that the field was populated with assumption data that was not entered by the user and that was determined by reading or executing the configuration file,

generating or selecting an interview screen comprising a request for the user to confirm or correct the assumption data,

presenting the interview screen to the user through a display of the computer, and

receiving user input in response to the request through the interview screen indicating confirmation or correction of the assumption data,

determining, by the modular user interface controller, that a second field is currently populated with other data and in response, prioritizing the other data in the second field over the assumption data by refraining, by the modular user interface controller, from overwriting the other data with the assumption data and flagging the configuration file from which the assumption data was determined in response to determining that the second field is currently populated;

setting, by the modular user interface controller and based at least in part upon the modular user interface controller receiving confirmation or correction of the assumption data in the first field, at least one current indicator of a data structure, the indicator indicating whether the assumption data written to the first field was confirmed or corrected by the user;

reading, by a modular rule-based logic agent comprising instructions executable by the processor of the computer and in communication with the shared data store and the modular user interface controller, form data including the assumption data retrieved from the shared data store;

generating, by the modular rule-based logic agent, a decision table;

eliminating or disabling, by the modular rule-based logic agent, at least one active rule based at least in part upon the read form data including the assumption data retrieved from the shared data store that are answers to respective questions in the generated decision table and read by the modular rule-based logic agent from the shared data store, wherein eliminating or disabling at least one active rule eliminates at least one candidate question but not all candidate questions presented to the user;

selecting, by the modular rule-based logic agent, a question from a plurality of candidate questions based at least in part upon the decision table including respective rows specifying respective active rules and respective columns specifying respective questions, wherein selection of the candidate question is based at least in part upon active rules of the decision table remaining after the modular rule-based logic agent eliminates or disables the at least one active rule;

generating, by the modular rule-based logic agent, a non-binding suggestion of at least one question to present to the user based at least in part upon the at least one question remaining after eliminating or disabling at least one rule of the decision table;

providing, by the modular rule-based logic agent, the non-binding suggestion to the modular user interface controller;

determining, by the modular user interface controller, to present the question of the non-binding suggestion to the user,

generating or selecting, by the modular user interface controller, an interview screen comprising the question of the non-binding suggestion, and

presenting, by the modular user interface controller, the interview screen including the question of the non-binding suggestion to the user through the display.

2. The method of claim **1**, further comprising:

receiving, by the modular user interface controller, additional data from an electronic data source;

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determining that the additional data is for the associated field already populated with the assumption data;
generating or selecting, by the modular user interface controller, a second interview screen to the user requesting the user to select the additional data received from the electronic data source to be utilized for the associated field and presenting the second interview screen to the user through the display;
receiving, by the modular user interface controller and through the second interview screen, a response by the user indicating whether the additional data should be utilized; and
updating, by the modular user interface controller, the data structure based at least in part upon the response.

3. The method of claim 1, the modular user interface controller writing the assumption data to the associated field comprising:
initializing a new instance based on the schema of the shared data store, wherein a field of the new instance includes the assumption data; and
populating a field of a previously generated instance with the assumption data.

4. The method of claim 1, the modular user interface controller writing the assumption data to the associated field comprising:
writing the assumption data to a field of an existing instance of the schema of the shared data store that was generated before the assumption data was determined by the modular user interface controller.

5. The method of claim 1, the modular user interface controller writing the assumption data comprising:
initializing a first new instance and a second new instance based on the schema of the shared data store, and populating the respective fields of respective first and second new instances with the assumption data.

6. The method of claim 1, wherein the shared data store comprises a previously generated first instance, and wherein the modular user interface controller writing the assumption data comprises:
populating a field of the previously generated first instance with the assumption data;
generating a second instance based on the schema utilized by the shared data store; and
populating a field of the second instance with the assumption data.

7. The method of claim 1, further comprising:
utilizing, by the modular rule-based logic agent, the assumption data to eliminate or disable at least one rule of the plurality of rules, and to enable or maintain as enabled at least one other rule of the plurality of rules, wherein the modular rule-based logic agent selects a question or topic based at least in part upon a rule that was enabled or maintained as enabled.

8. The method of claim 1, further comprising:
reading, by a modular calculation engine of the form preparation application comprising instructions executed by the processor of the computer and in communication with the shared data store and the modular user interface controller, data including the assumption data from the shared data store;
executing, by the modular calculation engine, a calculation with the data including the assumption data read from the shared data store and generating a result based at least in part upon the assumption data; and
writing, by the modular calculation engine, the result to the shared data store;

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wherein the data read by the modular rule-based logic agent from the shared data store includes the result generated by the modular calculation engine, and one or more questions or tax topics selected for the non-binding suggestion is the result read from the shared data store.

9. The method of claim 1, wherein the configuration file indicates whether the user confirmed the assumption data specified by the configuration file.

10. The method of claim 9, further comprising:
identifying or flagging, by the modular user interface controller, the configuration file when the user did not confirm the assumption data specified by the configuration file.

11. The method of claim 9, further comprising the modular user interface controller:
receiving data of other users of the form preparation application; and
identifying or flagging the configuration file when a pre-determined minimum number or percentage of other users of the tax return preparation application did not confirm the assumption data specified by the configuration file.

12. The method of claim 1, further comprising:
modifying, by the modular user interface controller, the selected configuration file based at least in part upon assumption data that was corrected by respective users a pre-determined minimum number or percentage of times.

13. The method of claim 1, further comprising:
writing, by the modular user interface controller, the assumption data to the shared data store by initializing a new instance based on the schema of the data store, the new instance including the assumption data.

14. The method of claim 1, wherein the modular user interface controller presents a first number of questions to the user as a result of using the assumption data, the first number of questions less than a number of questions presented by the modular user interface controller without using the assumption data.

15. The method of claim 1, wherein the modular user interface controller does not present a pre-determined type or category of question or tax topic to the user as a result of the assumption data.

16. The method of claim 1, responsive to the modular user interface controller determining that the field is partially populated with data stored in the shared data store, the method further comprising:
receiving, by the modular user interface controller, second user data;
selecting, by the modular user interface controller, a second configuration file based at least in part upon the received second user data;
reading or executing, by the modular user interface controller, the selected second configuration file;
determining, by the modular user interface controller, second assumption data that was not provided by the user or previously stored in the shared data store; and
writing, by the modular user interface controller, the determined second assumption data to the shared data store.

17. The method of claim 1, wherein the modular user interface controller selects the configuration file based on the received user data comprising an answer entered by the user into an interview screen generated by the modular user interface controller.

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18. The method of claim 1, wherein the modular user interface controller selects the configuration file based on the received user data comprising data of a prior year electronic tax return.

19. The method of claim 1, wherein the modular user interface controller selects the configuration file based on the received user data comprising data of an electronic file of a financial management system utilized by the user.

20. The method of claim 1, wherein the assumption data is specified within the configuration file and not previously provided by the user or determined from an electronic file provided by the user.

21. The method of claim 20, the assumption data specified by the configuration file being based at least in part upon statistical data of other users of the form return preparation application.

22. The method of claim 1, the selected configuration file pointing or referring to a field of an electronic document or electronic data source from which the modular user interface controller reads the assumption data and writes to the share data store.

23. The method of claim 22, the field of the electronic document or electronic data source being specified by the selected configuration file based at least in part upon statistical data of other users of the form preparation application.

24. The method of claim 1, wherein the modular user interface controller selects the configuration file based at least in part upon receiving a pre-determined type or category of user data.

25. The method of claim 1, wherein the modular user interface controller selects the configuration file based at least in part upon receiving user data from a pre-determined source.

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26. The method of claim 25, the pre-determined source comprising an electronic tax return of the user previously filed with a tax authority.

27. The method of claim 25, the pre-determined source comprising a computerized financial management system utilized by the user, the method further comprising receiving, by the modular user interface controller, login credentials of the user to access data of an account the user has with the computerized financial management system to determine user data within the account.

28. The method of claim 25, the pre-determined source comprising an online resource with which the modular user interface controller communicates through a network.

29. The method of claim 28, the online resource comprising an account the user has with an online social networking site, the method further comprising receiving, by the modular user interface controller, login credentials of the user and accessing the account the user has with the online social networking site to determine the user data within the account.

30. The method of claim 1, wherein the modular user interface controller selects the configuration file based at least in part upon receiving the user data of a pre-determined type or category and the user data satisfying pre-determined criteria.

31. The method of claim 1, wherein the computerized form preparation application is a computerized tax return preparation application.

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